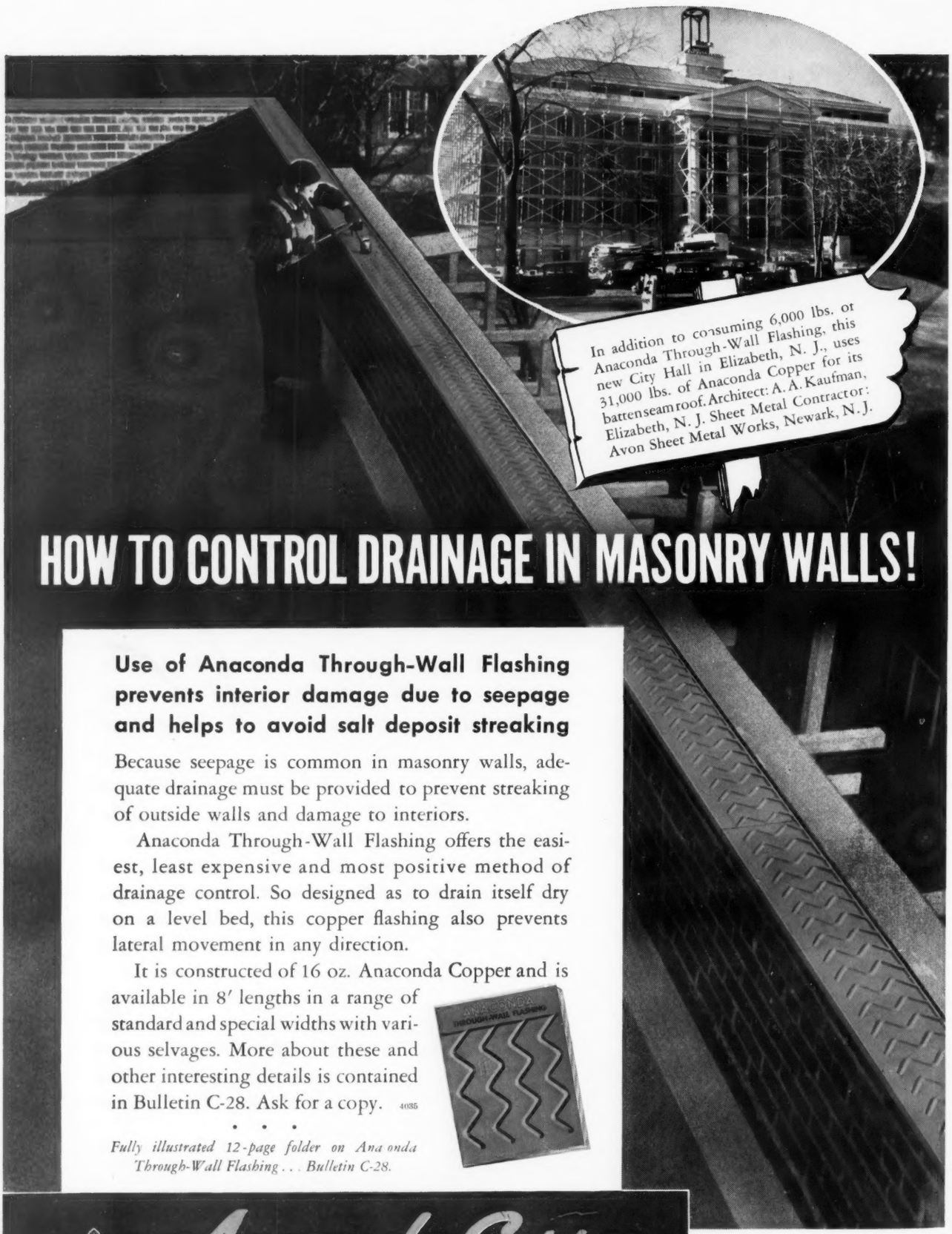
PENCIL POINTS

AVGVST

1940


In addition to consuming 6,000 lbs. of Anaconda Through-Wall Flashing, this new City Hall in Elizabeth, N. J., uses 31,000 lbs. of Anaconda Copper for its batten seam roof. Architect: A. A. Kaufman, Elizabeth, N. J. Sheet Metal Contractor: Avon Sheet Metal Works, Newark, N. J.

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HERE, THERE, THIS & THAT

BOSTON NOTES

The buffetings of the season have left us without additional ecchymoses since PENCIL POINTS last bore tidings from our backwater. But A. L. of B. has handled more job applications than usual, for members and non-members, which might indicate that the ebb is still in progress. If so, to prove the rule, there *are* grapevine rumors of scattered, outlying firms who find themselves tolerably busy.

Of course the A.I.A. Committee on Preparedness has collected thousands of questionnaires that give the collective story of our architectural strength, and now we are vitally interested in seeing how the next phase of this orderly process will evolve. Where will the work go, and to whom? My Indian runner (a full-blooded Kickapoo) tells me that the betting is inclined to give the location as "Middle West," with "to whom" set down as the "strong office," wherever job location may be. That bespeaks a premium on results and rules out work-spreading campaigns and political fracases.

The League, on July 25, had *John T. Whitmore* as speaker. Mr. Whitmore, recent president of the Boston Society of Architects, is our regional chairman of the A.I.A. Preparedness Committee, which at the moment engages his close attention.

When suddenly we realize that a familiar is unceremoniously missing from the byways of our professional world it is commonly supposed he has married money and bought a rustic property with exhibition fowl and livestock, a victim of the landed-gentry-impulse in a rather thin, American version. There are such, but more likely the fellow has amnesia or is trying to sell something, both being tough rigs. *John Shea* turned up another Port of Lost Men on a recent swing around the circle, for in the vast drafting rooms of Washington (Dee-Cee) he found many a New Englander quietly salting away the Uncle's dough for services rendered. There was *William McDermott*, for instance, whom we remember man and boy agitating the Club with his high spirits; them were the days. *Columbus Lord* left another gap when he hit the trail, and hasn't reported since, but some of the boys get roving commissions and return as government big-shots to tell former employers what's what. Globe-trotter Shea called at the Wigwam Builders and learned that *Carl Cederstrand* is designing another winner, for the 1940 Soap-box Derby: this for a chum of his prizewinning son, and so close to the wind that its young driver will have to be shoeless to fit the tonneau. Its name is "Stuff."

Local event of the season is Captain Bob Dean's induction into the redoubtable firm of Perry, Shaw, and Hepburn, which means that to the esoterics of architectural design he is now adding the stark realism of profits and losses.

Seems as though the gala season of beaches and banana splits is lagging a bit. No office parties or fancy suitings have come to light except in that hotbed of social functions, Mr. Wills' office. The July 13 week-end saw his lads transported bodily to the Wills summer place at Great East Lake, for annual rites. Loosen up, architects, and do likewise; be democratic in this Republican year. Incidentally the very latest architectural publication is "Houses for Good Living," by Royal Barry Wills. You can't afford to be without it (gratuitous plug).

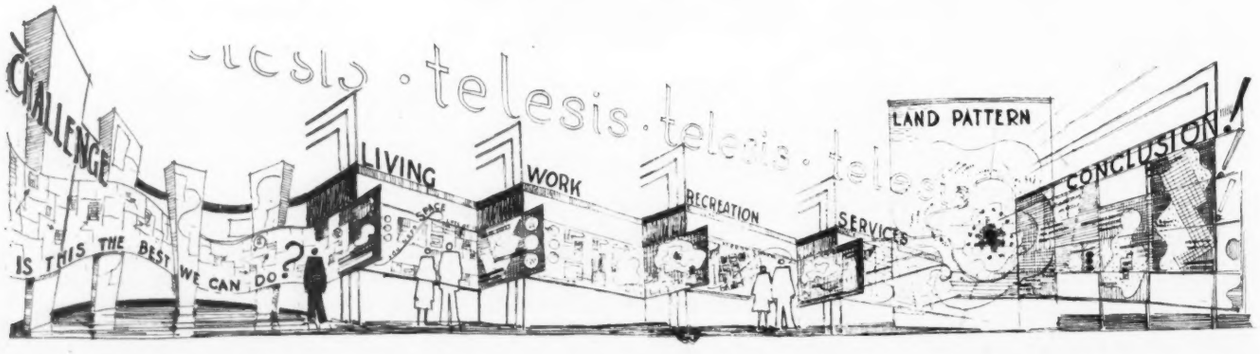
LEON KEACH

YOUNG DESIGNERS

Formation of a design group to be known as "Telesis" has been announced at San Francisco by a spokesman for the associated young planners, architects, landscape, and industrial designers. He writes us:

According to Webster, *telesis* means: "progress intelligently planned and directed; the attainment of desired ends by the application of intelligent human effort to the means." The group is interested in careful and continued research into all the phases of our physical environment, and the factors which form it. The members are aware that the social and economic forces under which we live are not the same as those which formed our present surroundings. They feel that the success of all our future development hinges on careful study of these changing forces.

At the invitation of the San Francisco Museum of Art, Telesis has planned an exhibit, being shown during August. This exhibit represents an analysis of man's present living conditions and suggests ends and means for their improvement. The analysis has been based on study of man's needs, the geographical nature of the localities in which he lives, and the technical possibilities he has developed. The basic relationship between land and people also is emphasized. The main body of the exhibition deals with the breakdown of their environment into space for working, living, and leisure, all integrated by service facilities. The conclusion advocates the use of existing legislative machinery for the improvement of our physical surroundings.



Beauty and Durability -IN WAINSCOT *and* DOORS

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Literature with architects' details and color suggestions on request.

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FORMICA FOR BUILDING PURPOSES

POTOMAC PATTER

Readers of this column may recall our reporting in the past few months, the ever-present and ever-growing demand of the so-called "younger element" of architects that the A.I.A. leave behind the "horse-and-buggy days" methods and administrative policies, and streamline its activities to revivify the interest of the entire profession and make it once again a vital and potent factor in our national life.

In our June issue we reported on a meeting of the D. C. Chapter of the A.I.A. In eager anticipation of the opportunity of discussing a previously prepared "ambitious and well-drawn program," some of the associate members felt themselves let down when the program was *not* brought up before the Chapter meeting—but instead were handed a promise that in the near future there would be presented the architects' solution of the problem of "A Planned Community."

All of which, gentle reader, brings us to our story. Reverberations of that innocent piece of reporting leads us to believe that it struck a bombshell (mildly, we trust). *Lewis E. Stevens*, President, Committee on Associate Activities, D. C. Chapter, A.I.A., now takes us to task:

"Through an incomplete and inaccurate piece of news reporting, the writer of this column, in the June issue, left his readers with the definite impression that the Associate Members of the Washington Chapter of the A.I.A., loaded a gun, then were afraid to pull the trigger. It is this impression that I wish to correct by completing the story Columnist RED reported superficially.

"The very same program that RED described as being 'ambitious and well drawn' was presented point for point by some twenty-five Associates to *Mr. Edwin Bergstrom*, National President of the A.I.A. The occasion was a luncheon meeting arranged for this purpose and all Associates were invited to attend. Unfortunately, RED was absent. However, the meeting was considered a huge success. Most Associates came away feeling that the direction indicated by President Bergstrom's administrative policies paralleled that of their own program sufficiently so that they could withhold further activity on these matters until the results of these policies could be appraised.

"Meanwhile, the Associates decided that they could most effectively bend their efforts toward the preparation of an architectural exhibit designed to interest the layman in community planning. In their own Chapter, Associates proposed a scheme (now in force) whereby they participated in the preparation of the Chapter program and serve on Chapter committees.

"If some Associates feel 'let down,' then it must be because they prefer to fight for the sake of a fight, rather than to work effectively."

(Continued on page 22)

PRATT CLINIC

Although the architectural classes of Pratt Institute, Brooklyn, are not in session during the Summer, the Architectural Clinic established this year to popularize architectural services among clients with smallest budgets has continued its work with graduate "internes" on duty and faculty "specialists" available for consultations. The many demands for architectural services gave the Clinic more work than the staff could handle in the academic year, according to Cecil C. Briggs, Department Supervisor.

Among interesting projects now in progress are a low-cost housing development and three "sectional" houses, which the owners have started with an absolute minimum of dwelling, intending to add rooms as funds permit further building.

Briggs states that the Clinic has a policy of accepting only such work as would be unprofitable to men in the profession. All plans drawn are supervised by a Registered Architect, and work not in the Clinic's field is referred to established offices. Owners must pay a fee of one dollar, plus expenses, for Clinical services.

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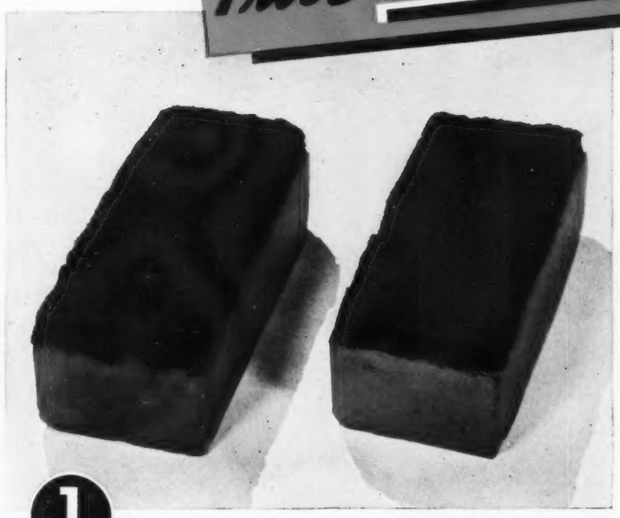
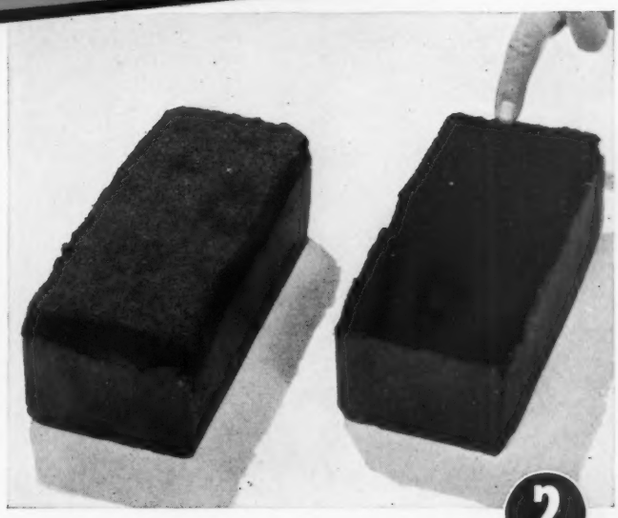


1 Butter one brick with Brixment mortar, colored with any good black mortar color. Then butter another brick with mortar made from lime and cement, and the *same* mortar color.



2 Set both brick aside for a couple of weeks. You'll find that the sample made with Brixment mortar retains its full, rich color, while the other turns dull or pale.

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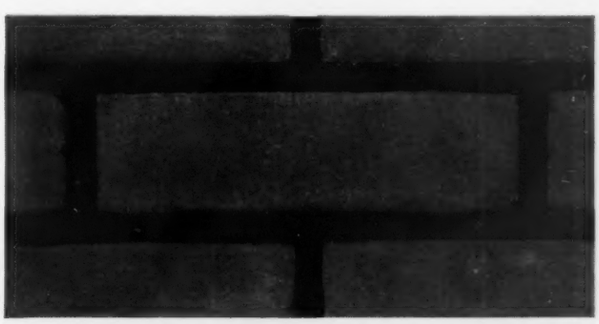
If *you* have a mortar color job, get a bag of Brixment and try it with your favorite mortar color. Sack for sack, we believe you will find that the mortar color goes further and *looks better* with Brixment than with any other mortar you have ever tried.



BRIXMENT

For Mortar and Stucco

(Continued from page 20)

While it is true that "the very same program" (which we reported in June was the "ambitious and well-drawn program" that the associates had earnestly hoped would be brought up for discussion at the Chapter meeting—and was not) "was presented point for point by some twenty-five associates to *Mr. Edwin Bergstrom*, National President of A.I.A.," at a luncheon meeting, that the meeting may have been considered a huge success and that most associates may have come away feeling that the direction indicated by President Bergstrom's administrative policies paralleled that of their own program—it must be noted that we brought up, *prior to the completing of the report*, that what we (associates) were discussing is already part of the A.I.A. program. In reply we were given the impression that the Associates were about to make an effort to "wake up" the Institute. Quoting from the report, "the purpose of the report is two-fold—(1) to outline the requirements for a vital professional organization and (2) to determine whether or not the A.I.A. meets these requirements. During the past few years there has been considerable criticism of various A.I.A. policies. The Associates believe that they should discuss these criticisms and prepare a comprehensive report for presentation to the Washington, D.C., Chapter at the April meeting. They also believe that the report should be sent to the Seventy-second Convention of the A.I.A. as a sample of ideas held by younger men in the profession."

Since Mr. Stevens places his trust in President Bergstrom, we will place our trust in Mr. Stevens and accept his statement regarding the success of the meeting with President Bergstrom and hope that the appraisal of the policy most desired by the associates—and to which they have conscientiously pointed their efforts—will soon be broadcast to all A.I.A. members "so that all that read may know"—and profit thereby.

The boom is on! Not only in your Uncle Sam's architectural units, but also among the local practitioners. The Building Inspector's office is going full blast and *Colonel Oehmann's* assistants are bending every effort to get the drawings passed upon, to permit early construction. We understand that August construction will shatter all previous records. The National Defense Program probably will increase housing requirements both in Washington and Alexandria, not to mention the suburban areas in Virginia and Maryland, by about 5,000 units.

In view of the above, it appears that the local architects should have a banner season providing they can get help. Of course, many of the Government lads would be willing to work evenings providing your Uncle Sam doesn't require their overtime services.

RED

GOOD RESPONSE

Hundreds of responses are being received daily to the A.I.A. National Defense questionnaire sent recently to more than 14,500 members of the profession throughout the country, Edwin Bergstrom, President, has reported to President Roosevelt.

Replies are being assembled at the national headquarters of the Institute in Washington, D. C., where a complete inventory of architectural facilities, personnel, and resources will be at the service of the government.

JUST as the public demands efficiency in service from public utility companies, so do these firms demand efficiency in service from the products they use. So, for a recent remodeling job, the men in charge chose AZROCK Carpet Tile for floors and corridors.

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CITATION LATER

The project to award Certificates of Merit to small houses selected in the New York metropolitan area has aroused such general interest that it has been decided to change the closing date from September 1 to September 30, we are advised by Herbert Lippmann, A.I.A., chairman of the sub-committee handling the project. The sub-committee also will consider houses completed in 1940 up to the closing date, as it was felt that the builders of these houses might enjoy some benefits from the Merit Certificates at the time when the houses are being offered for sale.

The Jury announcement also has been postponed one month to November 1 and it has been decided that the Jury will be composed of members selected by each of the twelve Societies and Chapters sponsoring the project. Entry forms may be obtained from any of the participating groups, as announced in the June issue.

DETROIT EXHIBIT

An exhibition of work from offices of Detroit Architects will be held October 1-15 at the Detroit Institute of Arts, according to an announcement in the *Bulletin* of the Michigan Society, by *Aloys Frank Herman*, President of the Detroit Division. Joint sponsors will be the Detroit Division and the Detroit A.I.A.

PLAN EXCHANGE

Inauguration of a new service for architects of Sweden, to provide copies of latest designs and plans for hospitals at a cost of one krona (about 25c), is expected to save time and money for private and public offices. It is known as the Central Institute for Hospital Standards, Information, and Research.

The Institute collects standard designs relating to the various kinds of hospitals, and thereby enables interested authorities to make use of a wide range of information at one and the same time. Much involved and frequently overlapping work by committees and investigations is thereby eliminated by the Institute, in conjunction with its associate body, known as the Standardization Committee, and a new and welcome uniformity has been achieved. The plan, which has worked out splendidly ever since the beginning, has won the support of the Swedish government Medical Board, as well as by the Riksdag, or National Parliament, which, in fact, granted the funds which made it possible for the institution to get a start.

The designer of an optical clinic, for instance, deposits with the Institute copies of his drawings. When another similar clinic is to be built, its architect carefully studies the plans of his predecessor, thereby often gaining a vast fund of valuable suggestions and instructions, and frequently eliminating many mistakes. At present the arrangement is entirely voluntary, but it does not seem unlikely that the procedure will some day become compulsory, since its benefits are so many. It can, of course, also be made to apply to the construction of schools, old people's homes, and similar institutions.

The Institute also provides information about the latest news and development of hospital equipment, and it will soon begin to arrange post-graduate courses for architects, engineers, and hospital staffs. Copies of the material may be purchased.

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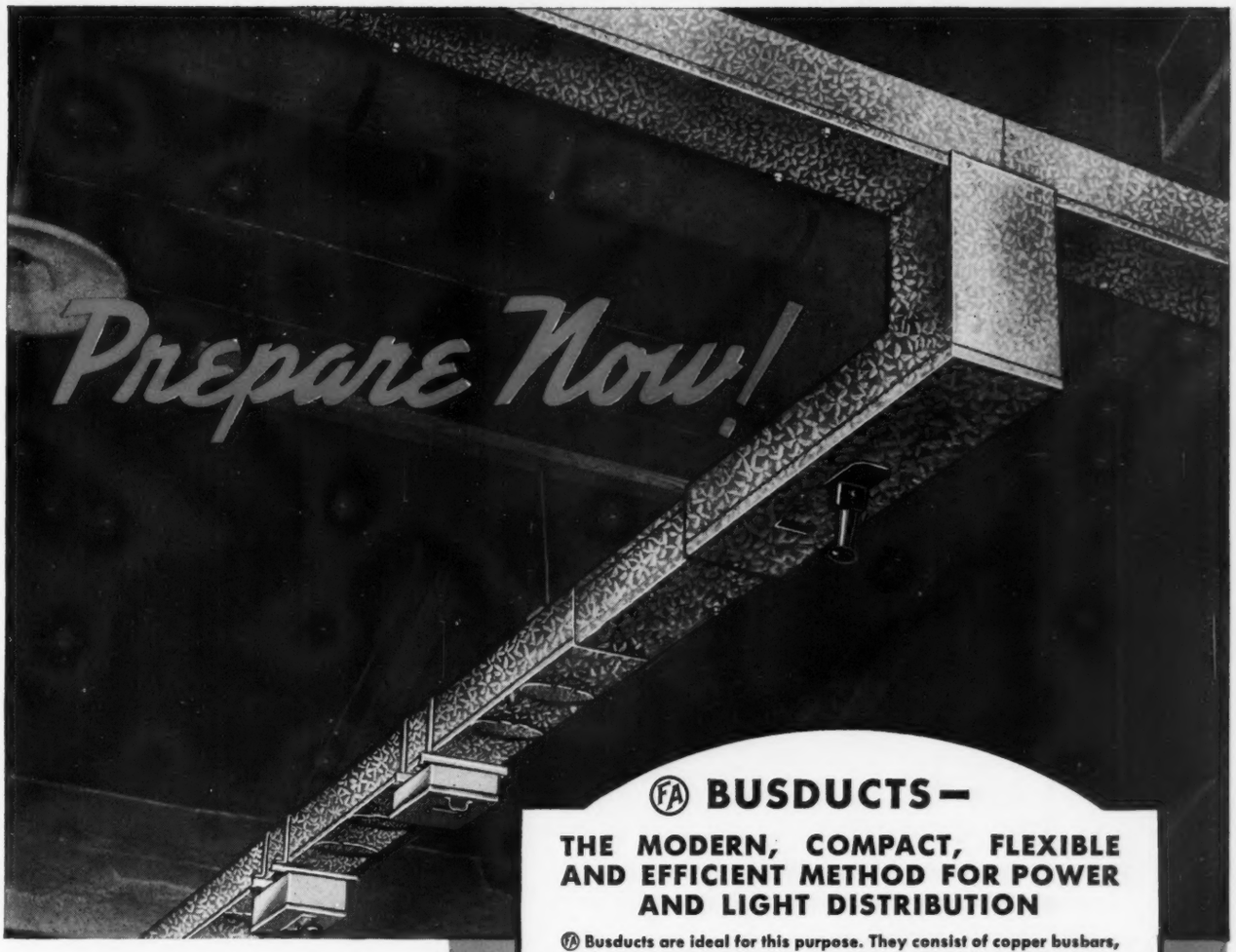

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CHURCH GUILD

Formation of the *Church Architectural Guild* at a meeting in New York, June 21, called at the suggestion of the *Christian Herald*, has been announced. Members are Architects, or representatives of architectural firms, who have designed or consulted in design of notable church buildings of the past 20 years.

Ralph Adams Cram is Honorary President of the Guild, and other officers include: *Harry Leslie Walker*, New York, President; *Philip Frohman*, Washington, Vice President; *Carleton Winslow*, Los Angeles, Vice President; *Paul Maynard*, New York, Secretary; and *Harry Warren*, New York, Treasurer.

The purposes of the Church Architectural Guild were outlined as follows:

To promote excellence in church architecture and the allied arts.

To foster greater appreciation of the essentials of church architecture and planning on the part of the church constituency.

To aid church building committees in the selection of an architect.

To assist architects without experience in the designing of churches to a better understanding of the essentials of ecclesiastical design.

To foster the study of ecclesiastical architecture, particularly in technical and theological colleges.

SIR RAYMOND UNWIN

Sir Raymond Unwin, English town planner and housing expert whose achievements and writings in this specialized field brought him international fame, died June 28 after an illness of about two months, at the summer home of his daughter, Mrs. Curtice Hitchcock, in Lyme, Connecticut. He was 76 years old.

For the past four years, Sir Raymond spent part of each year in the United States as visiting professor in the Columbia University School of Architecture. He also was consultant in this country on housing and town planning, and lectured at the Massachusetts Institute of Technology, Cornell University, and other American institutions. In 1937 he received an honorary doctorate from Harvard.

Sir Raymond was president of the Royal Institute of British Architects from 1931 to 1933, and was knighted in 1932. In 1937 he received the Royal Gold Medal, instituted by Queen Victoria in 1848, and conferred annually for distinction in architecture, science or letters. The Ebenezer Howard Memorial Medal of the Garden Cities and Town Planning Association of England was awarded to Sir Raymond in 1938.

Sir Raymond also held honorary degrees from the Universities of Prague, Toronto, and Manchester, and from Trondheim University. He was author of "Town Planning in Practice," a basic work in this field which has been translated into French and German, of "Nothing Gained by Overcrowding," and, with Barry Parker, of "The Art of Building a Home." He had also contributed widely to periodicals.

E. STANLEY HALL

The death of *E. Stanley Hall*, President of the Royal Institute of British Architects, has been announced by inclusion of a card in the latest issue of the Institute Journal. He died June 16 in London.

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VOLUME XXI NUMBER 8 AUGUST, 1940

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THE MONOGRAPH SERIES

VOLUME XXVI, NUMBER 4

THE GARDNER-WHITE-PINGREE HOUSE, BUILT IN SALEM, MASSACHUSETTS, IN 1804, BY SAMUEL McINTIRE, ARCHITECT, BY *FRANK CHOUTEAU BROWN*, WITH RESEARCH AND MEASURED DRAWINGS BY THE AUTHOR, AND PHOTOGRAPHS BY *ARTHUR C. HASKELL* 515

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PENCIL POINTS

KENNETH REID, EDITOR. CHARLES MAGRUDER, MANAGING EDITOR
DON GRAF, TECHNICAL EDITOR

THE MONOGRAPH SERIES
RUSSELL F. WHITEHEAD, EDITOR

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LET US BE PREPARED

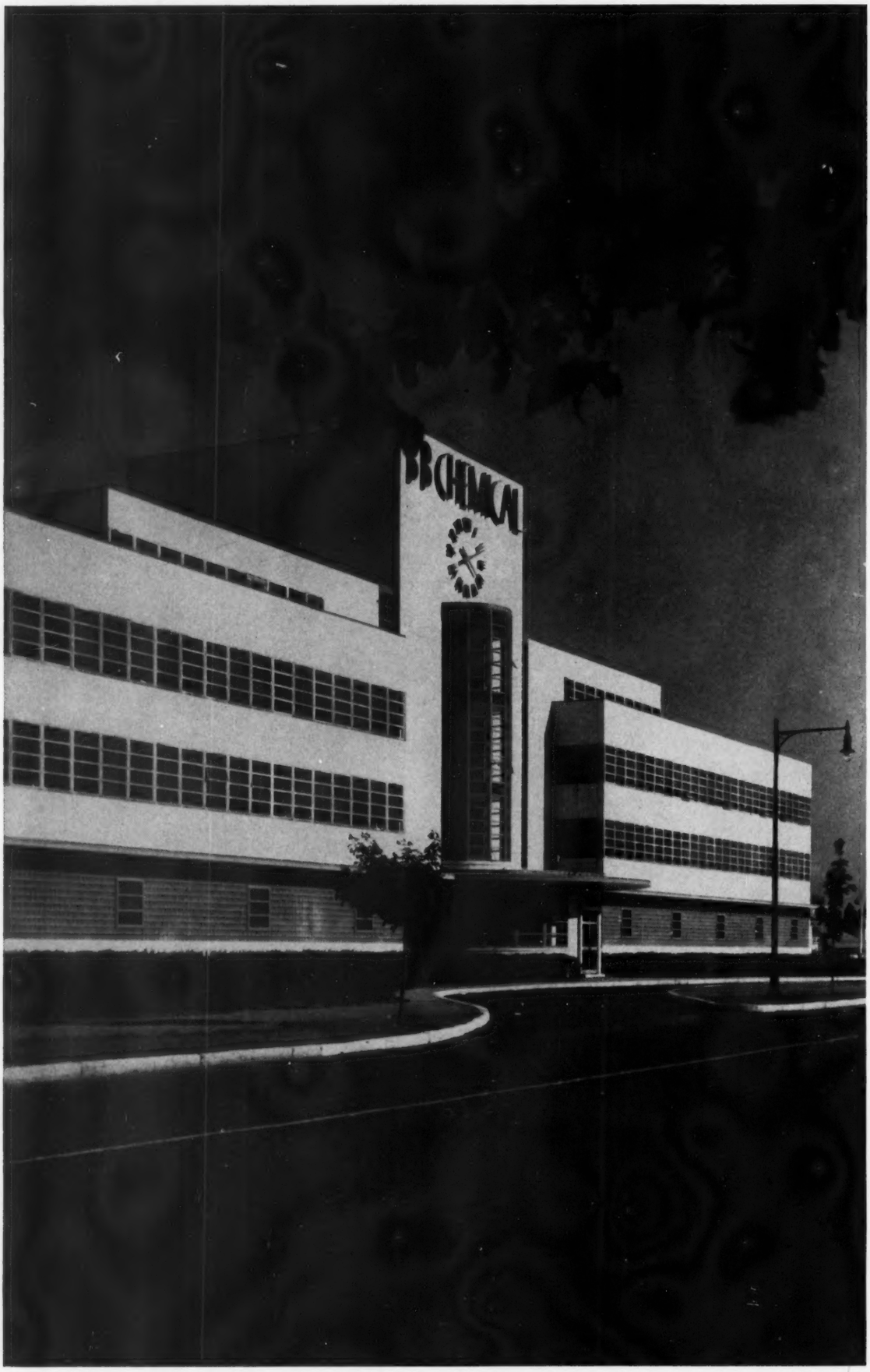
Viewed from the top of a mountain in New England, where we happen to be sitting at the moment of this writing, the world appears completely at peace. War, or even the prospect of war seems remote. So, too, must it seem from most of the places from which our countrymen look out upon peaceful surroundings as they concern themselves with their everyday business. Therein lies our chief danger.

Because it is easier and pleasanter to sit back and tell ourselves that probably no attack will be made against us, we may fail to prepare *in time* against an attack that *may* come. It happened in France; it happened in England: it could happen here. The moral is plain. Better to spend our energies and resources freely and generously to prepare against a threat that does not materialize than to be niggardly and slow and risk the loss of our freedom. Wars today, of either offense or defense are won by the side that is most completely equipped.

Just now, it seems to be agreed, the most vital immediate need of our country is an expanded industrial plant. Existing facilities must be enlarged and new ones built so that adequate production of modern weapons and military equipment may be established and maintained. It is here that architects are playing their first active part in the general preparedness program—not all architects, to be sure, but those few who have specialized more or less on factory design and who have evolved over a period of years increasingly efficient, economical, and rapid methods of factory construction. Of the efforts of these men we have taken some note in this issue. Soon there will develop a demand for industrial housing to take care of the workers who will man the new industrial plants. The experience gained in the emergency housing of the last war, plus all that has been learned in the field of housing and community planning since that time, makes the architectural profession preeminently able to serve in providing for this special need. We fully expect architects to be called on to control the direction this effort will take, as well as the details of carrying it out, for it is important that human values be considered in this kind of housing too. For this reason we expect to devote considerable space to the subject of housing in our September issue, with particular reference to the emergency program.

Beyond the industrial needs there will be other needs that architects can help to fill. Airport facilities will be required to extend the scope and utility of our growing air defense. Part of this work will, of course, be done under the direction of the military authorities but part of it will be primarily civil in purpose and carried out under civil organization. With this in view we are planning to include some pertinent and up-to-date design data on airports and their appurtenances in our October issue.

And so, as the months pass, we will be of as much service as we can, in providing information to serve the needs of the times. For we are convinced that the emergency that confronts us is a real one, which will demand the full effort of every architectural man before it is over.



B. B. CHEMICAL COMPANY PLANT IN CAMBRIDGE, MASSACHUSETTS, DESIGNED BY COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS, OF BOSTON. THE PHOTOGRAPH WAS MADE BY J. STEDMAN ADAMS

FACTORIES AS ARCHITECTURE

BY TALBOT F. HAMLIN

If architecture consists of all the things man builds in the effort to make his environment orderly, decent, and beautiful, surely factories must be architecture; and if they *are* architecture they *may be* good architecture. Mankind has a right not to have his eyesight insulted by the place where he works. Nature, generally, does not insult the sense of sight; only man reserves for himself that privilege. And nowhere is the task of architecture to correct this more necessary than in the design of industrial buildings.

Nor is factory design architecturally impossible. Is it some strange leftover from puritan thinking that makes us feel that work places must necessarily be ugly? Of course a thousand examples exist here and there over the world to disprove this popular superstititon. As modern architecture becomes more and more socialized in its ideals, it must perforce devote more time to the industrial building field.

And there is in the systematic functioning of industrial processes an inherent sense of form which should be an inspiration to form-loving architects. Raw materials arrive, pass through inevitable processes in which power is applied, reach assembly or finishing units, are perhaps stored and then shipped away as manufactured goods. The greater the rationalization of industry, the more definite the efficiency, the more closely does the process in any factory achieve definite form. It is but natural that the buildings to surround and shelter this industrial process, if not tortured or warped by the desire to impose preordained shapes, will also achieve a definite form which will have meaning and may be made a source of architectural power — and architectural beauty too, for what is beauty but definiteness of form pleasantly related, colored, and studied for harmonious expression?

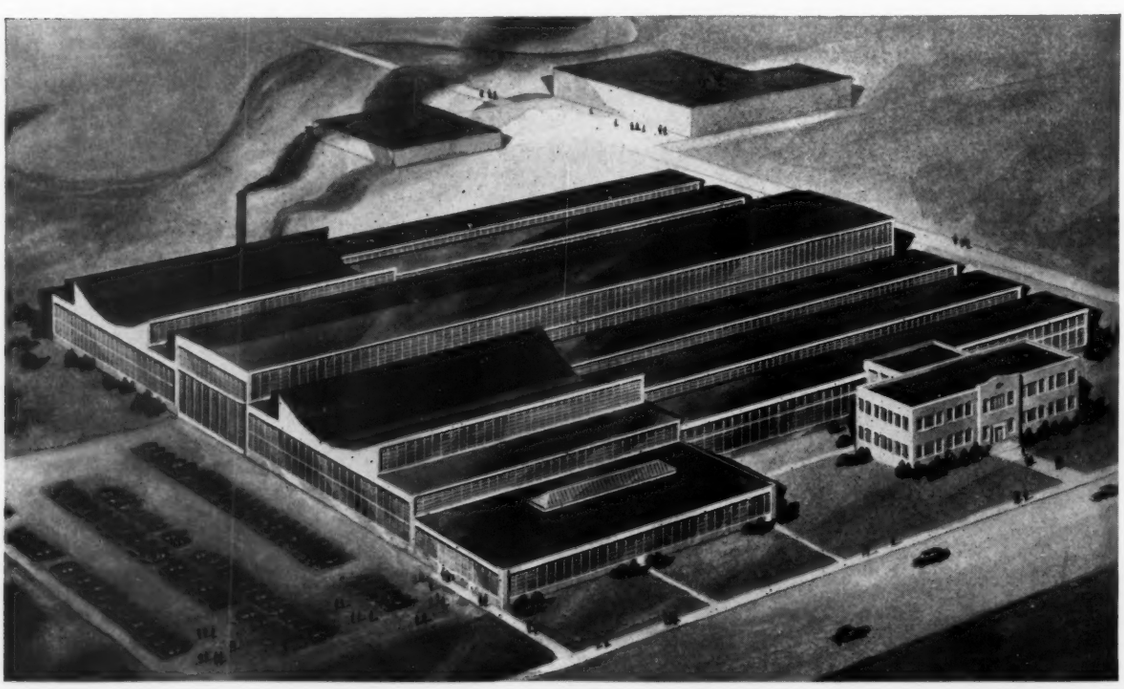
Here one must discriminate carefully between architectural beauty which results from planned form, and picturesque beauty which is the result of chance or of confusing unrelated categories. For instance, when the smoke from western factories is smeared, a purple bank, across the sunset, and the sky above and beneath is dyed orange and gold, there is undeniable beauty which would not have existed had the factories not been there. Or, when one sees the flaring of volcanic reds pouring from the slag heaps beside a blast furnace by night, with the strange flames above the blasts lighting up the underside of smoke and steam, there is magnificent and thrilling beauty. Yet in neither case can beauty like this be accepted as architectural, or even as socially desirable. The smoke which turns the sunset into gorgeousness seeps in the window cracks of every home; black soot descends on clothes and floors and food; and, when the wind is different and clouds hang low, the smoke becomes a stifling and a darkening pall.

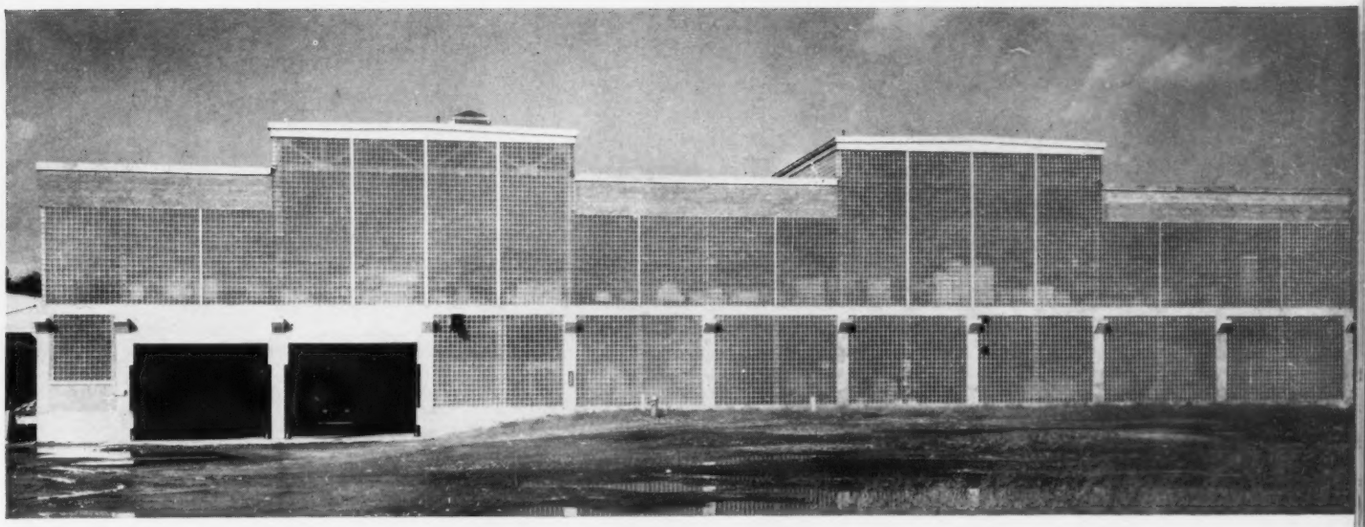
Architectural beauty is almost the reverse of all this; for architectural beauty, being dependent on planned form, endures, and whatever the weather, whatever the time of day, whatever the surrounding conditions, brings harmony and peace and pleasantness wherever it can be seen. True architectural

IN THE PLANT OF THE GERITY-ADRIAN MANUFACTURING COMPANY, AT ADRIAN, MICHIGAN, ALBERT KAHN HAS ACHIEVED UNUSUAL DIGNITY BY SIMPLICITY OF TREATMENT—REGULARITY OF PANE DIVISIONS AND AN UNBROKEN CLERESTORY EXTENDING FOR THE ENTIRE WIDTH OF THE BUILDING. THE VAST PLANT DESIGNED BY THE SAME ARCHITECT FOR SIKORSKY, AT STRATFORD, CONNECTICUT, REPRESENTS AN INGENIOUS COMBINATION OF THE FORMS REQUIRED TO SERVE THE VARIOUS PARTS OF THE FACTORY. VIVID AND EFFECTIVE AS THE RESULT IS, IT IS ALSO NOTABLE AS AN EXAMPLE OF THE FLEXIBILITY INHERENT IN THE BEST INDUSTRIAL DESIGN. THE REGULAR DIVISIONS OF GLASS AREAS LEND UNITY. RENDERINGS OF KAHN'S WORK ARE BY JOHN T. CRONIN

beauty might depend even on eliminating the accidental, as far as nature would permit, and on conditioning smoke and gas and flame outlets to mitigate their discharge, direct the flames where they could furnish necessary heat, and eliminate the smoke as much as possible. The truly architectural factory would thus become, not a blight upon its neighborhood, but the reverse.

There are in large plants so many visually exciting forms, such a wealth of material to work with, that it is difficult to see why they have been for so long used in a merely helter-skelter confusion. The tall domed cylinders of blast furnaces, the smoke and discharge stacks, the varied forms of ven-

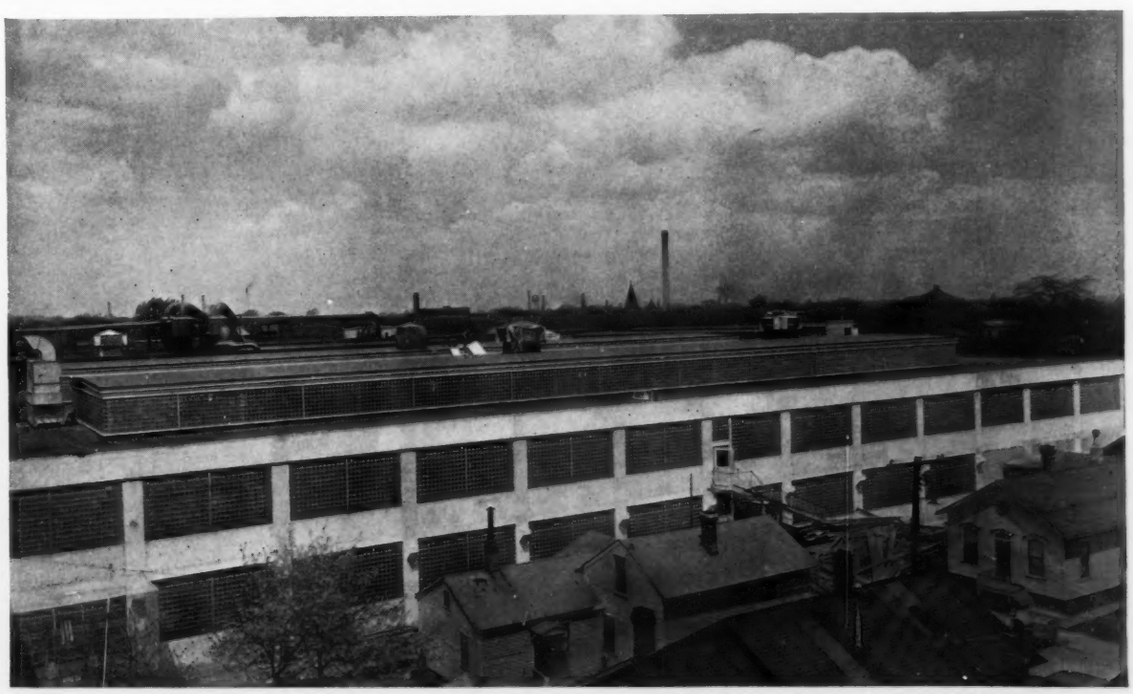




tilators and smoke combustion chambers, the shapes of condensers, the dynamic lines of material conveyors (horizontal or inclined), the strong cylinders of grain elevators or coal or cement storage bins, the delicate framework of cranes, or the lines of busy fuel hoists—these all form an alphabet with which any artist should be delighted to work; and when they are all related systematically and purposefully in accordance with a well integrated plan, as for example in parts of Albert Kahn's River Rouge Ford plant, the result is true architectural as well as picturesque beauty (Page 481).

The greater number of factory buildings, however, are deprived of these exciting op-

EDWIN J. KRAUS, ARCHITECT, OF MILWAUKEE, WISCONSIN, DESIGNED THE TWO BUILDINGS SHOWN ON THIS PAGE FOR THE WESTERN PRINTING COMPANY. HIS ABLE HANDLING OF GLASS BLOCK, WHEN USED FOR ENTIRE WALLS, IS EVIDENT IN THE PRESS BUILDING, ABOVE, AT POUGHKEEPSIE, NEW YORK; WHILE IN THE BUILDING BELOW, AT RACINE, WISCONSIN, THE GLASS BLOCK AREAS ARE SMALLER AND MAKE A PATTERN WITH THE CONCRETE STRUCTURAL ELEMENTS. KRAUS STATES THAT THESE BUILDINGS SOLVE DIFFICULTIES WHICH HAVE BESET THE PRINTING INDUSTRY FOR YEARS. USE OF CORK AS AN INSULATING MATERIAL, TOGETHER WITH THE GLASS BLOCK, MAKES IT POSSIBLE TO MAINTAIN REQUIRED HUMIDITY WITHOUT DAMAGE OR EXCESSIVE COST

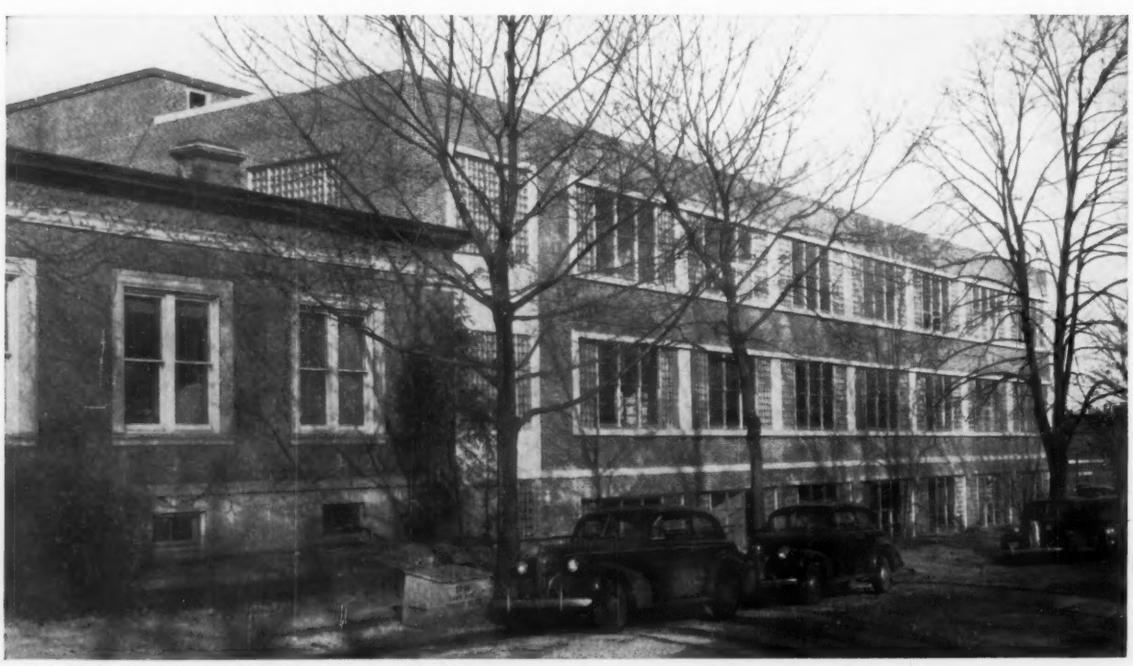


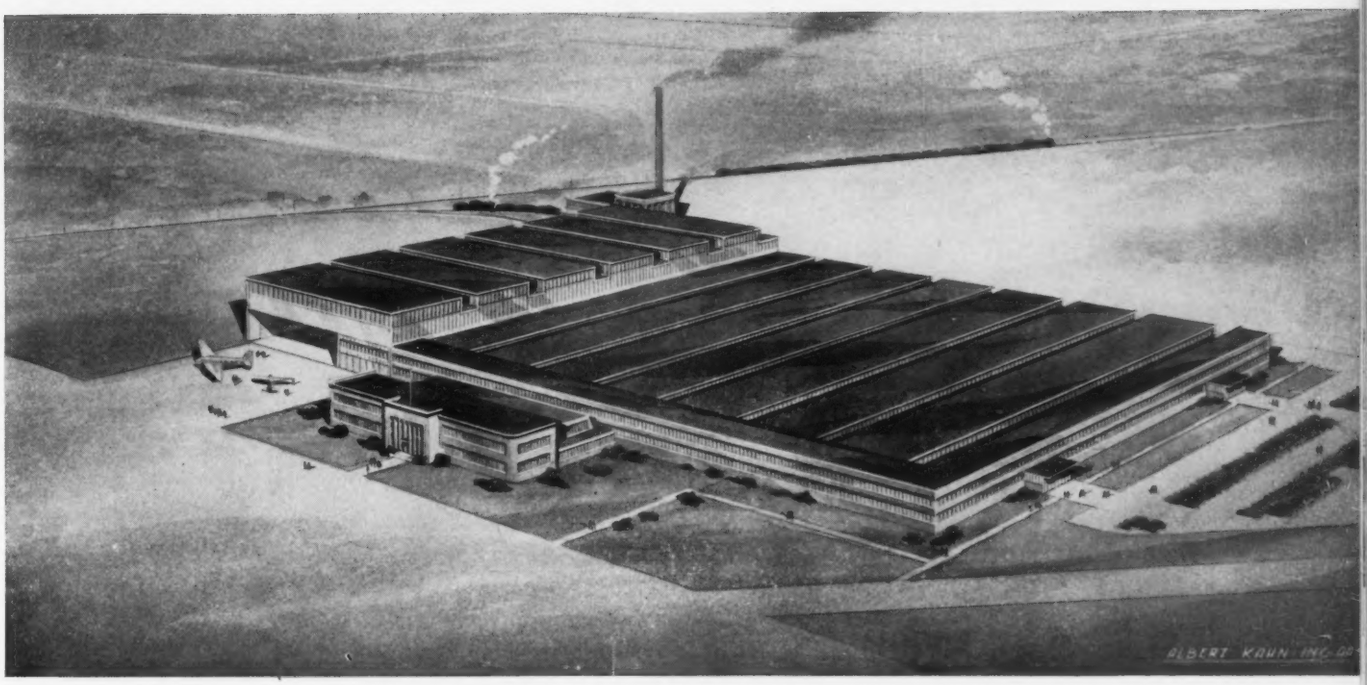
THE RIVERSIDE ADMINISTRATION BUILDING OF THE B. B. CHEMICAL COMPANY IN CAMBRIDGE, MASSACHUSETTS, THE AUTHOR FINDS "EXTREMELY EFFECTIVE." A CLOSER VIEW OF THE CENTRAL UNIT IS SHOWN ON PAGE 468. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, OF BOSTON, WERE THE ARCHITECTS. THE PLANT OF THE STANLEY WORKS IN NEW BRITAIN, CONNECTICUT, SHOWN BELOW, IS NOTABLE FOR ITS INTERESTING PATTERN OF GLASS BLOCK AND WINDOWS IN THE NEW OFFICE ADDITION DESIGNED BY MAXWELL MOORE & CHARLES SALSBURY, OF WEST HARTFORD. GLASS BLOCK DIFFUSES LIGHT AROUND THE COLUMNS

portunities. More and more, as electric distribution of power becomes general, the smoke stack yields its importance and the flexibility given by individual power machines allows the development of simpler enclosing halls. Even great size or tremendous scale is required in but relatively few plants. Most of the things we manufacture are small. The locomotive plant, the great machine shop, the large airplane factory will, it is true, require enormous assembly chambers; but for the most part today's manufacture is done in comparatively small units, on comparatively small machines which can be freely spaced.

Another element adds to the difficulty of the industrial problem—the necessity for flexibility. In many cases the differentiation between factory and loft building is hard to draw. What are universally needed, however, are regularity, relatively wide spans to allow flexibility in machine placing, floods of light, and ventilation.

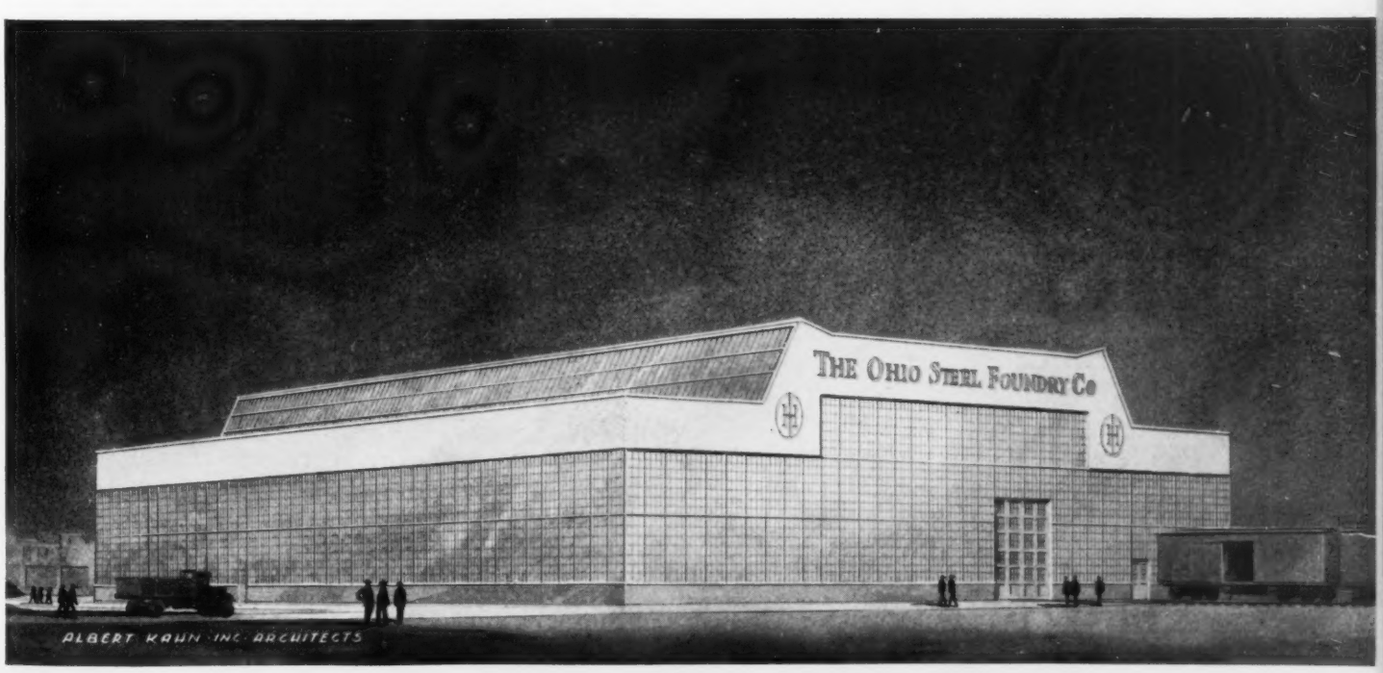
The natural result has been the development of all sorts of methods of roofing over large areas of ground in such a way that light may penetrate the entire building, and the consequent development of sawtooth, monitor, and clerestory roofs of various kinds. In buildings for heavy industry, such dominant forms as the high monitor roof or the butterfly truss roof often confer striking inter-

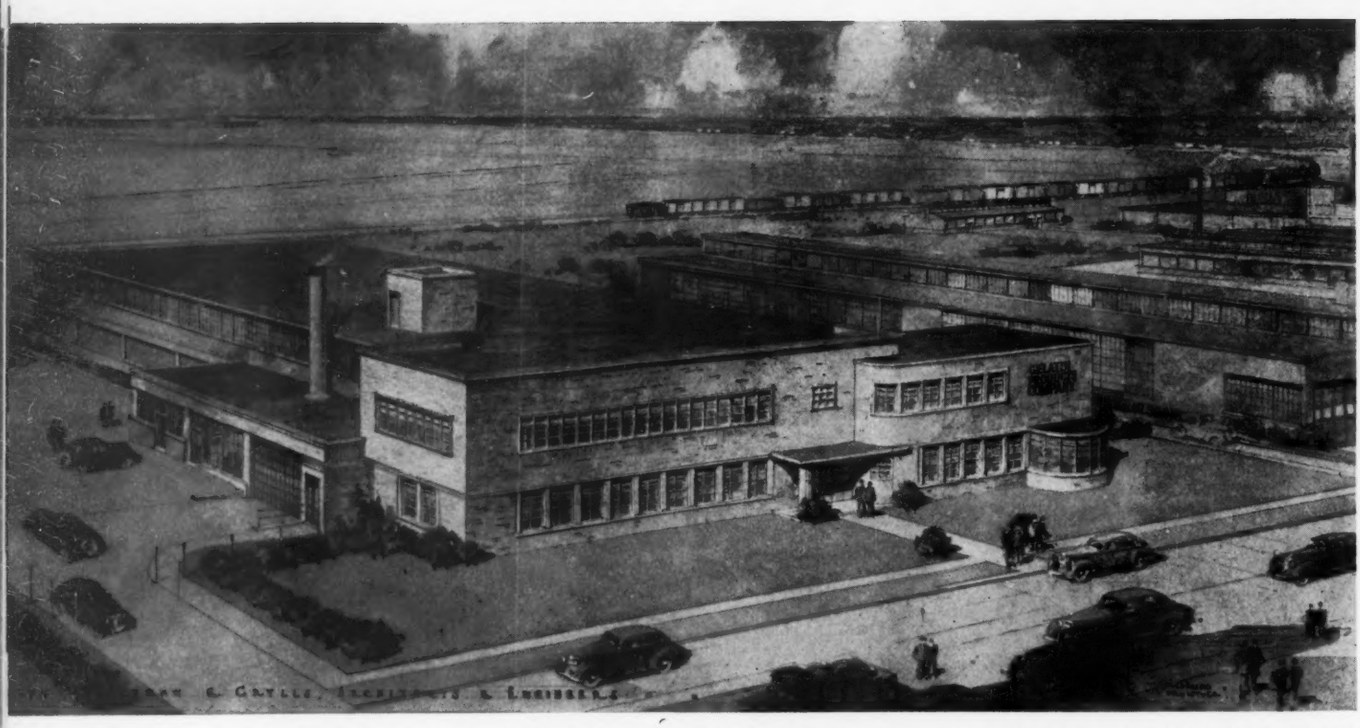




est; or else the simple great scale of walls all of glass gives a surprising dignity. There is, for instance, a magnificent classical regularity about such a simple glass-walled shed as that of the stamping building of the Westinghouse Company at Mansfield, Ohio (Page 481), or the simple clerestory building of the Gerity-Adrian Manufacturing Corp., Adrian, Michigan (Page 470), the half reflecting and half transparent character of the walls revealing something of the structure within, the regularity of pane size and frame division giving strong rhythm. These forms

IN THE PROPOSED AIRPLANE PLANT, ABOVE, AND IN THE BUILDING OF THE OHIO STEEL FOUNDRY COMPANY, BELOW, ALBERT KAHN HAS BOLDLY SPOKEN THE NEW LANGUAGE OF THE INDUSTRIAL DESIGNER. THE CAREFULLY ORGANIZED WORK SPACE, THE CONTINUOUS BANDS OF WINDOWS, EVEN THE LOFTY, REPEATED ASSEMBLY HALLS ARE THE ELEMENTS OF A STRAIGHTFORWARD SOLUTION—IN WHICH THE STYLIZED FACADE OF THE ADMINISTRATION WING IS PERHAPS A JARRING NOTE. OF COURSE THE BUILDING BELOW IS STRIKING IN COMPOSITION AND FORM YET THE ARCHITECTURAL TREATMENT IS SIMPLE

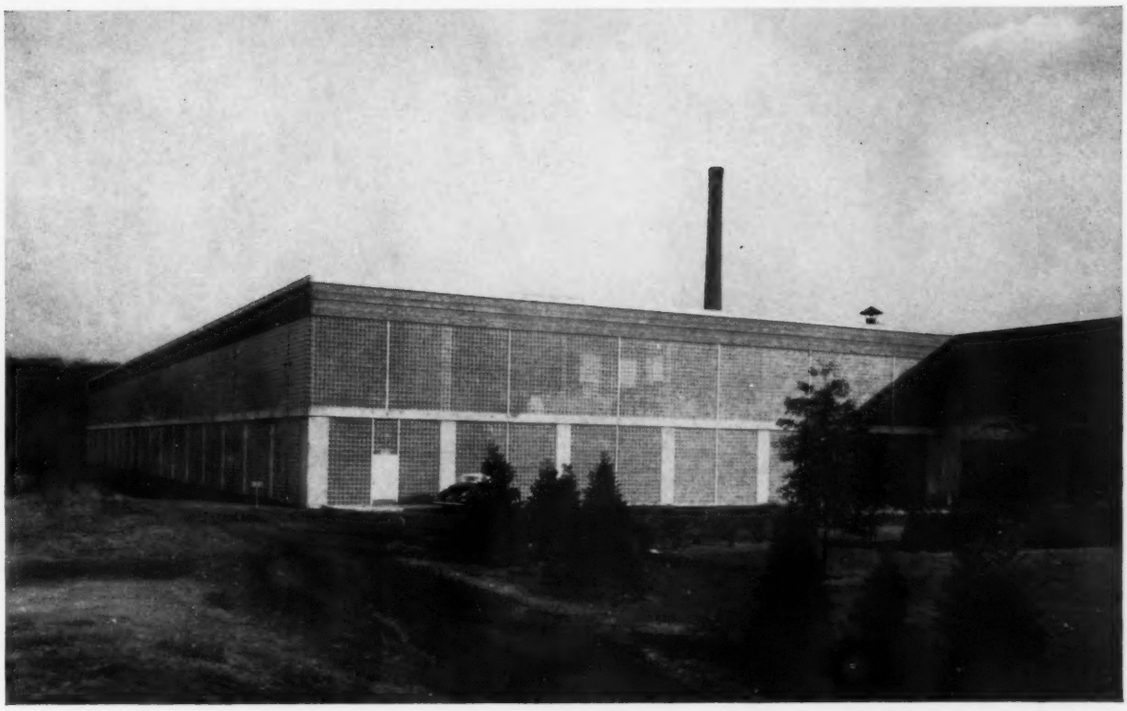




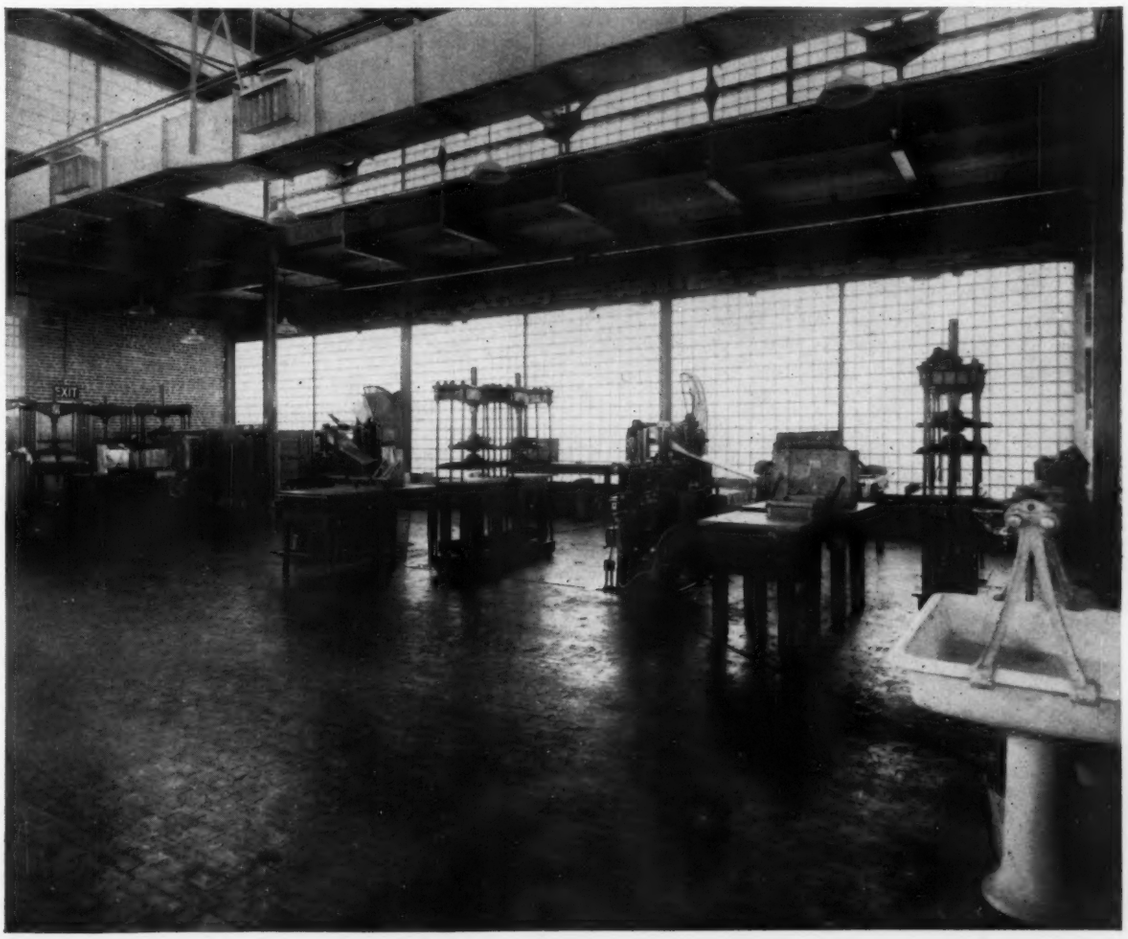
ALL OF THE ARCHITECTURAL FORMS AND MASSES OF THE GELATIN PRODUCTS COMPANY OF DETROIT, DESIGNED BY SMITH, HINCHMAN & GRYLLS, ARCHITECTS AND ENGINEERS, HAVE VERY EVIDENTLY BEEN COMBINED IN AN ATTEMPT AT REAL INTEGRATION OF THE ENTIRE PLANT—AND THE DESIGN HAS THEREBY GAINED IN INTEREST. IN THIS RENDERING BY FREDERICK CROWTHER THE HANDLING OF THE STREET FRONT OF THE PLANT IS CLEARLY EXPLAINED, AND ITS RELATION TO THE FACTORY BEYOND

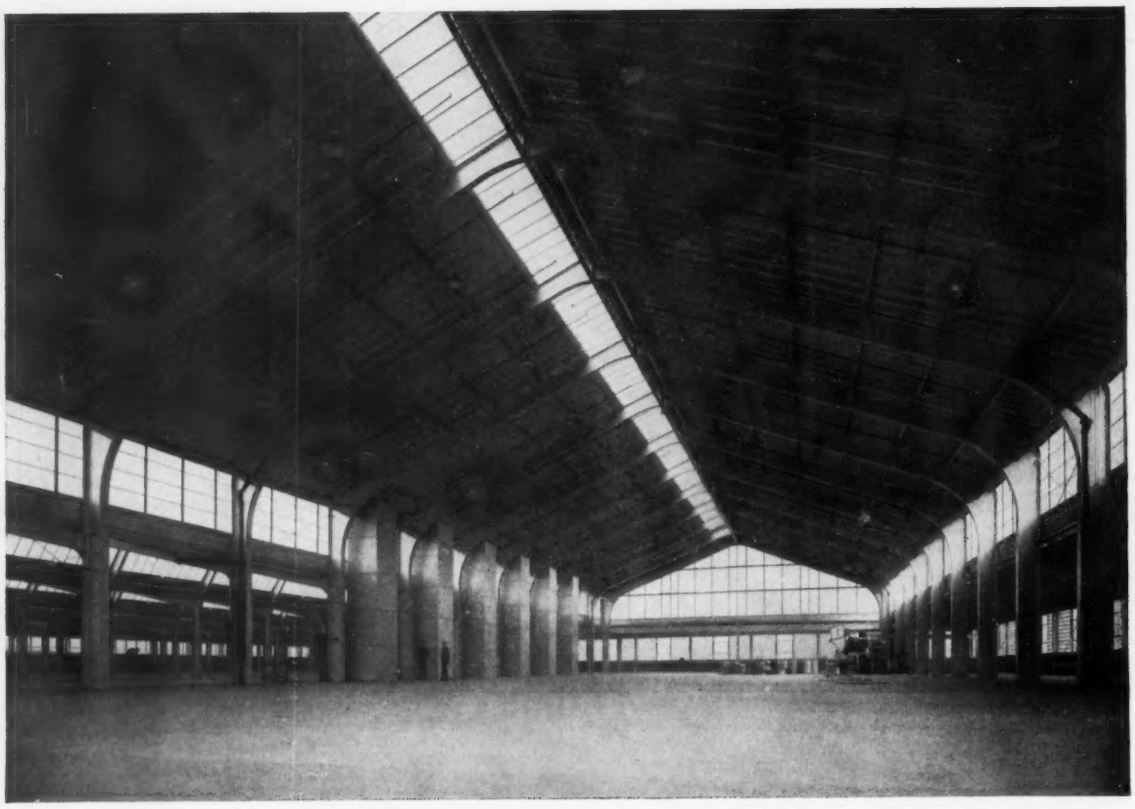
always seem best when most simply treated, as for example in Kahn's great butterfly-roofed building for Ohio Steel Foundry Co. (Page 473). Here one has a striking sense of space purposefully composed and adequately surrounded; even the off-center railroad track door somehow seems inevitable. Combinations of these forms, as in the Sikorsky plant, Stratford, Conn. (Page 470), or the proposed Olds Foundry at Lansing, Michigan (Page 480), are also vivid and effective. In the simpler buildings which more nearly approach the loft building in type, the exterior problem is harder. Here, reliance must be placed on the direct handling of the materials and the most careful study of proportion in bay spacing and window arrangement. Nowhere else has the horizontal strip window proved itself such a practical and yet such a beautiful feature as in factory building design, and again and again long horizontals with a pleasant variation of brick spandrel, wall, and glass window have given harmony and quiet amenity to factory façades that once would have been barren and depressing. This is not a matter of applied architecture. For instance, the wing of the Stanley Works at New Britain (Page 472), by Maxwell Moore & Charles Salsbury, seems to make the cornice and pseudo-classical details of the little building in the foreground appear artificial and affected. In the windows of the new part the variation of glass block at the sides and clear glass at the center not only gives diversity and interest of rhythm, but also serves to diffuse the light around the columns.

But most manufacturing plants offer more opportunities than the design of a single shed or even the single administration building to serve as a frontispiece, like the extremely effective riverside administration building of the B.B. Chemical Company in Cambridge, Mass. (Page 472), by Coolidge, Shepley, Bulfinch and Abbott. They offer as well an exciting occasion for the combination of many units, for many purposes, into one integrated whole. In this group composition there is one American besetting sin, the result of an old-time habit. In many cases in the past, manufacturers, having built the requisite acres of characterless sheds, have

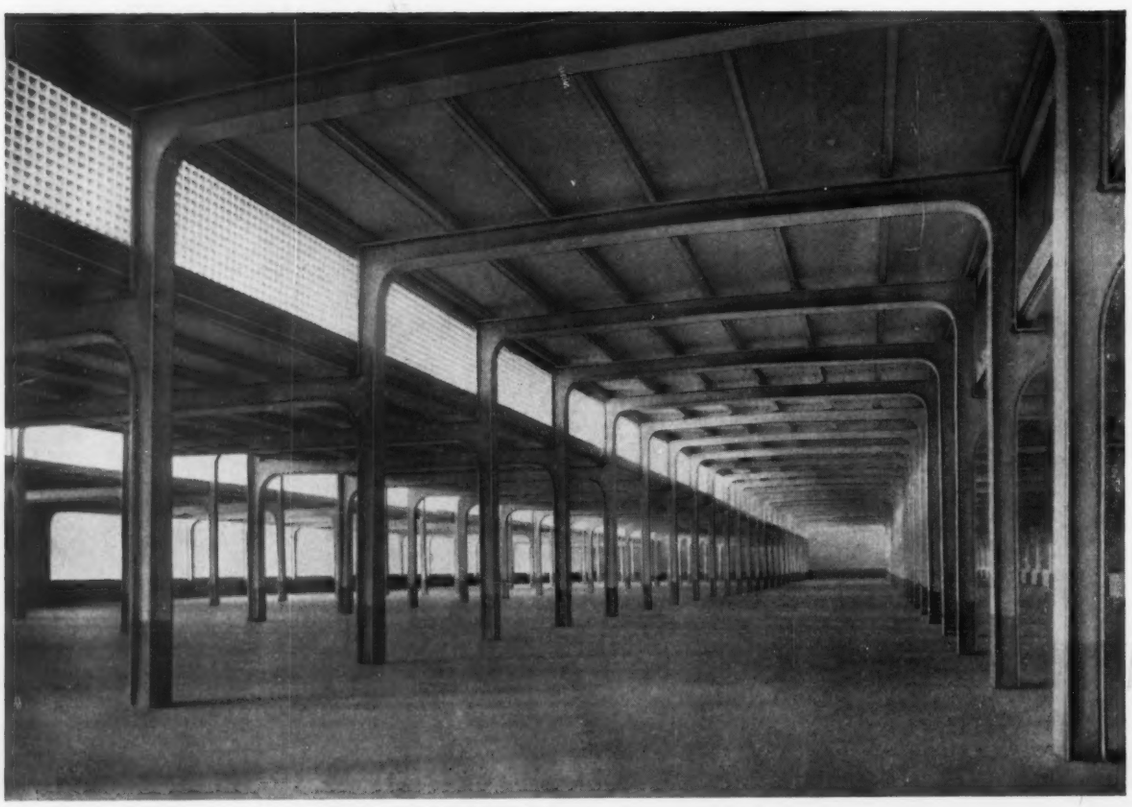


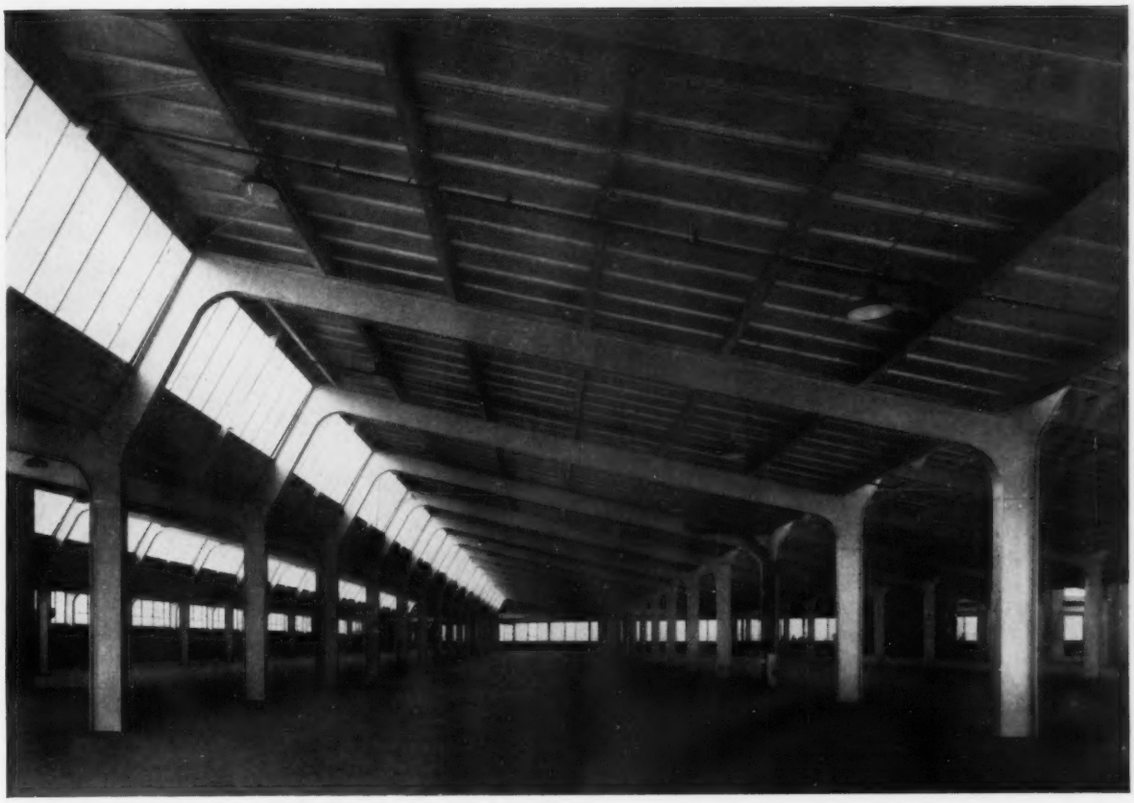
WHEN THE PRESS BUILDING AT POUGHKEEPSIE, NEW YORK, WAS DESIGNED BY EDWIN J. KRAUS FOR THE WESTERN PRINTING COMPANY, GLASS BLOCK WAS USED GENEROUSLY, TO ADMIT THE FLOODS OF LIGHT NEEDED FOR THE PRINTERS. IT HAS PROVED A GOOD INVESTMENT, AS WELL, SINCE IT IS POSSIBLE TO PROTECT PAPERS BY MAINTAINING PROPER TEMPERATURE AND HUMIDITY WITHOUT THE USUAL LOSS THROUGH WINDOW OPENINGS IN OLD TYPE STRUCTURES. THE CORK INSULATION ALSO CUTS LOSS



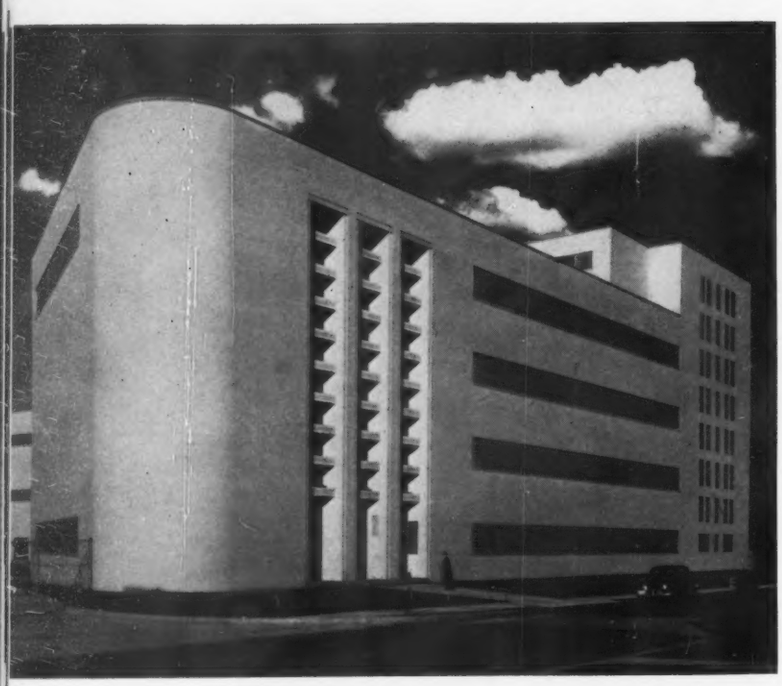


THE 240-FOOT "CATHEDRAL" BAY, ABOVE, WITH 80-FOOT CLEAR SPAN, WAS CONSTRUCTED ENTIRELY OF SECTIONS PREFABRICATED BY ARC WELDING IN THE SHOPS OF THE AUSTIN COMPANY, ENGINEERS AND BUILDERS, OF CLEVELAND AND NEW YORK. IT WAS COMPLETED IN RECORD TIME FOR THE LINCOLN ELECTRIC COMPANY OF CLEVELAND. THE WELDED CROSS-SECTION SHOWN BELOW WAS DESIGNED BY THE AUSTIN COMPANY FOR PLANTS REQUIRING MONITOR ILLUMINATION, SUCH AS THE CONTINUOUS BAND OF GLASS BLOCK, AND APPLIES THE TREE-FORM PRINCIPLE WHERE BEAMS AND COLUMNS ARE JOINED

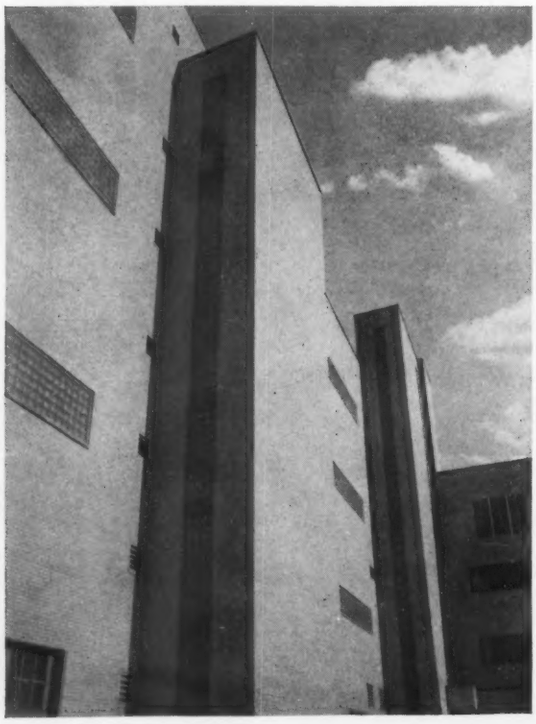




THE SIMPLICITY ACHIEVED THROUGH UNAFFECTED DESIGNING OF FACTORY INTERIORS IS EVIDENT IN THESE EXAMPLES OF THE WORK OF THE AUSTIN COMPANY. RIGID, TRUSSLESS SAWTOOTH CONSTRUCTION, PROVIDING 80,000 FEET OF WORKING AREA IN FOUR 40-FOOT AISLES OF THE LINCOLN ELECTRIC COMPANY'S NEW ALL-WELDED FACTORY ADDITION AT CLEVELAND, IS SHOWN ABOVE. THE VIEW BELOW SHOWS THE "WHALEBACK" CROSS-SECTION DEVELOPED BY AUSTIN ENGINEERS, HERE COMBINED WITH THE TREE-FORM COLUMNS USED IN WELDED, RIGID-FRAME SAWTOOTH BUILDINGS. PHOTOS BY THE AUSTIN COMPANY



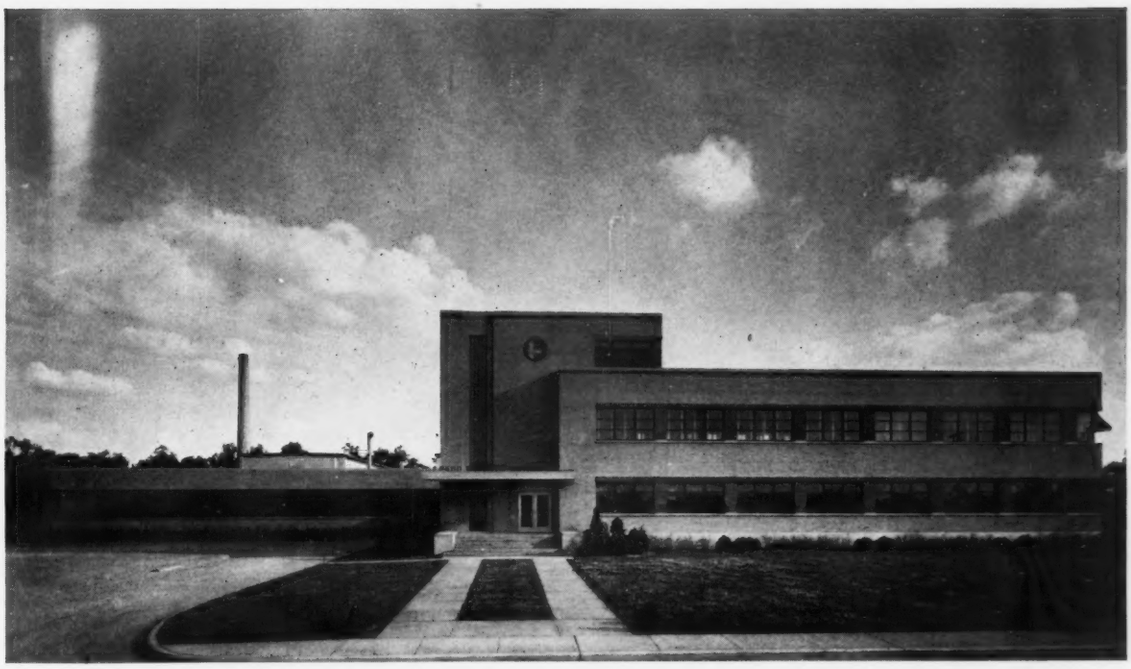
THE EXPRESSIVENESS OF VARIATION IN THE SIZES AND SHAPES OF OPENINGS IS STRIKINGLY ILLUSTRATED BY THESE VIEWS OF THE $2,500,000 CHURCH AND DWIGHT PLANT, DESIGNED BY THE AUSTIN COMPANY OF CLEVELAND AND NEW YORK, ENGINEERS AND BUILDERS. THE GREAT CURVED CORNER OF THE BRICK WALL, THE EFFECTIVE TREATMENT OF THE ENTRANCE, AND THE HORIZONTAL BANDS OF GLASS BLOCK ALL REFLECT DIFFERENT FUNCTIONS WITHIN THE AIR-CONDITIONED BUILDING — WITHOUT DISTURBING THE UNITY OF THE STEEL AND BRICK STRUCTURE



suddenly bethought themselves that they must make a good impression on the public, and have forthwith engaged an architect to do a little office or administration building on the main street façade. This could be "gayed" up in the fashionable style of the period, prettily planted with evergreens from the local nursery, and then pointed to with pride as industrial architecture. The hope was that somehow its 50- or 100-foot frontage would hide the 400-foot squalor behind. But usually, because the two elements were considered so separately, the "architected" administration building served only to make the factory behind the more gloomy, and the great scale of the factory only made the administration building seem more patently an intrusion. The bad habit thus set is deeply ingrained, even when the factory and the administration center have been conceived as one thing and designed by one firm. Nowhere is façade architecture more utterly repugnant than in factory design, or more disastrously common.

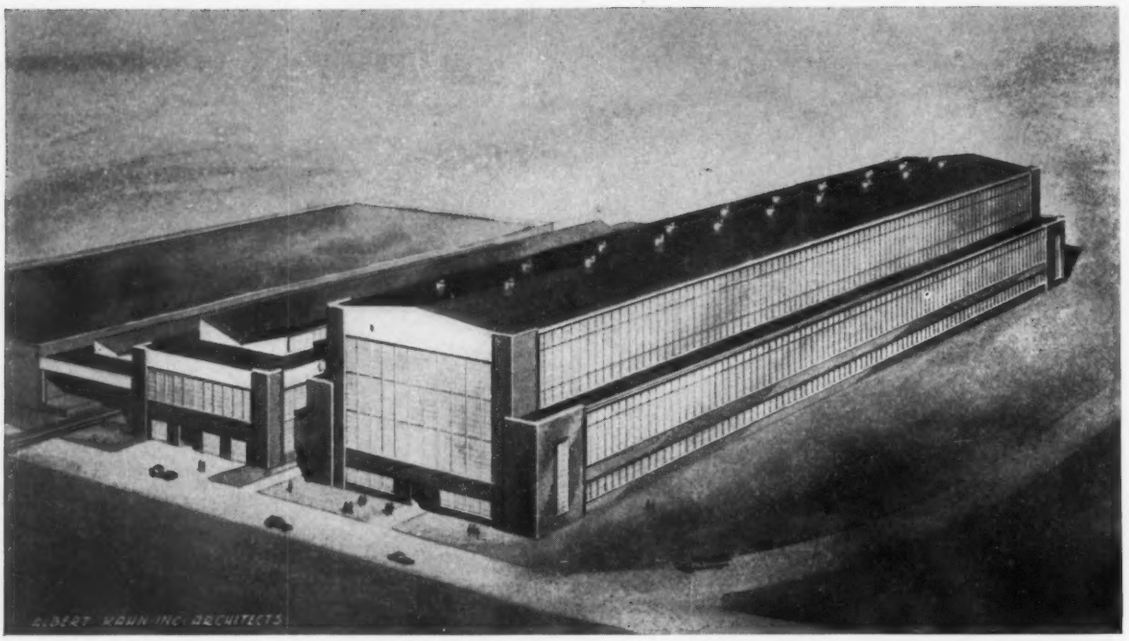
It is therefore all the greater pleasure to come across those examples in which an attempt at real integration has been made. In the Gelatin Products Company (Page 474), for example, by Smith, Hinchman and Grylls, all the masses have been combined with an evident effort to make them one, and the planes have thereby gained the greater interest. The same quality is to be seen in the Progressive Welder Company building, Detroit, across-page, by the Austin Company, though here perhaps the connection between the monitor roof behind and the curved façade of the front might have been slightly more unified; yet the impression is definitely of one thing, not of an applied superficial motif. The same quality is even more obvious in the group for the Penn Electric Switch Company at Goshen, Indiana, also across-page, where administration, laboratory, and work rooms have been integrated into one definite unit all characterized by the same feeling and developed with a marked skill in geometrical composition.

In the Church and Dwight Plant at Syracuse (left), the Austin Company has created



a plant which is completely one. The building has enormous character; its great curved corner, its sharp contrasts of vertical and horizontal openings, its projecting bays, all express in a simple way the variety of functions within the building, without disturbing the essential unity of the whole. It is along such lines of emphasizing the unity that the future of any constructive industrial architecture must lie. We have passed the age when there seemed some inherent dignity in "business" which did not exist in

VIEWS OF THE PENN ELECTRIC SWITCH COMPANY, IN GOSHEN, INDIANA, AND THE PROGRESSIVE WELDER COMPANY, IN DETROIT, FURTHER ILLUSTRATE THE SKILL DISPLAYED BY DESIGNERS OF THE AUSTIN COMPANY IN THE INTEGRATION OF OFFICE OR ADMINISTRATIVE PORTIONS OF THE INDUSTRIAL PLANTS WITH THE WORK OR LABORATORY AREAS. THIS IS DESIGN WELL-ADVANCED FROM THE OLD SPRAWLING FACTORY BLOCKS WHICH BOASTED AS THEIR SINGLE REDEEMING FEATURE A STYLIZED ADMINISTRATION UNIT, EXPECTED TO OFFSET ALL UGLINESS BEHIND



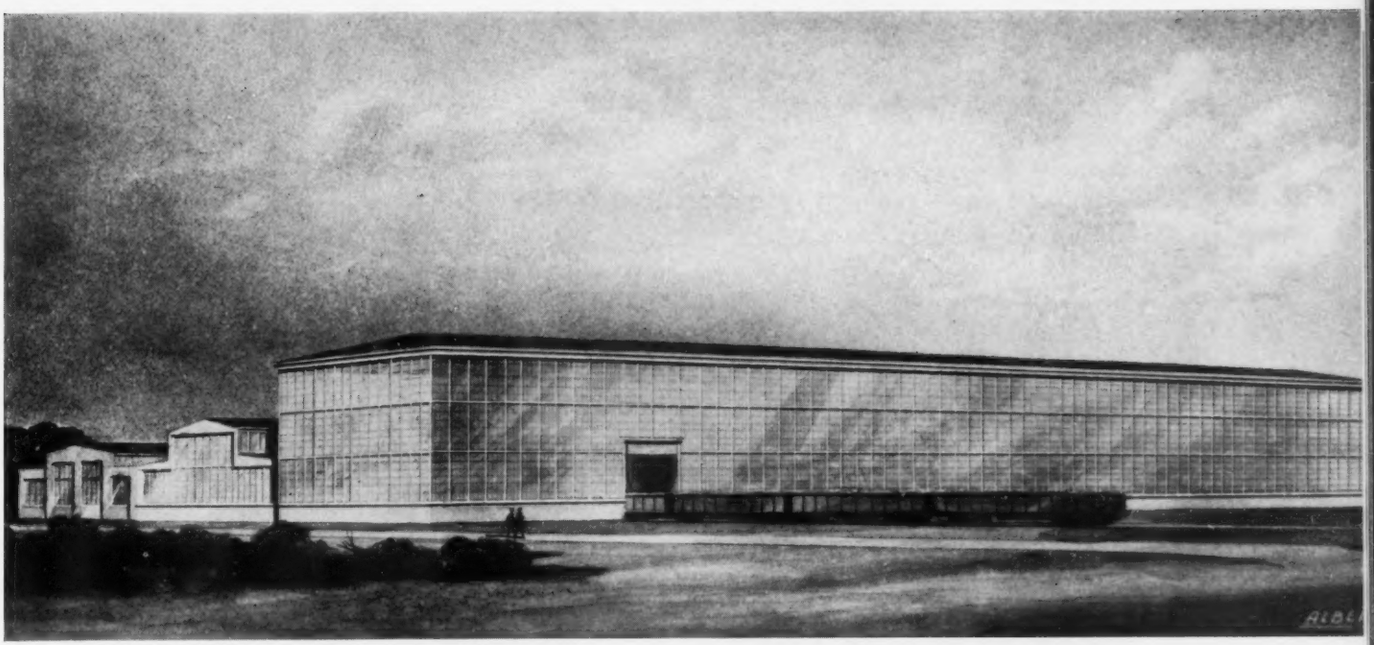
ALSO WELL-INTEGRATED AND EFFECTIVE IN ITS IMAGINATIVE COMBINATION OF FORMS IS THIS DESIGN BY ALBERT KAHN FOR A PROPOSED OLDS FOUNDRY IN LANSING, MICHIGAN. THE SCALE OF THE STRUCTURE IS OVERPOWERING — THE VAST GLASS AREAS REPRESENTING A PROVISION FOR FLOODS OF LIGHT. RENDERING BY JOHN CRONIN

manufacturing. Architecturally, the whole type of factory design based upon the contrast between the sweaty workman in dirty overalls and the clean clerk in white collar and derby hat is fundamentally false and out-of-date; it can lead only to confusion and ugliness.

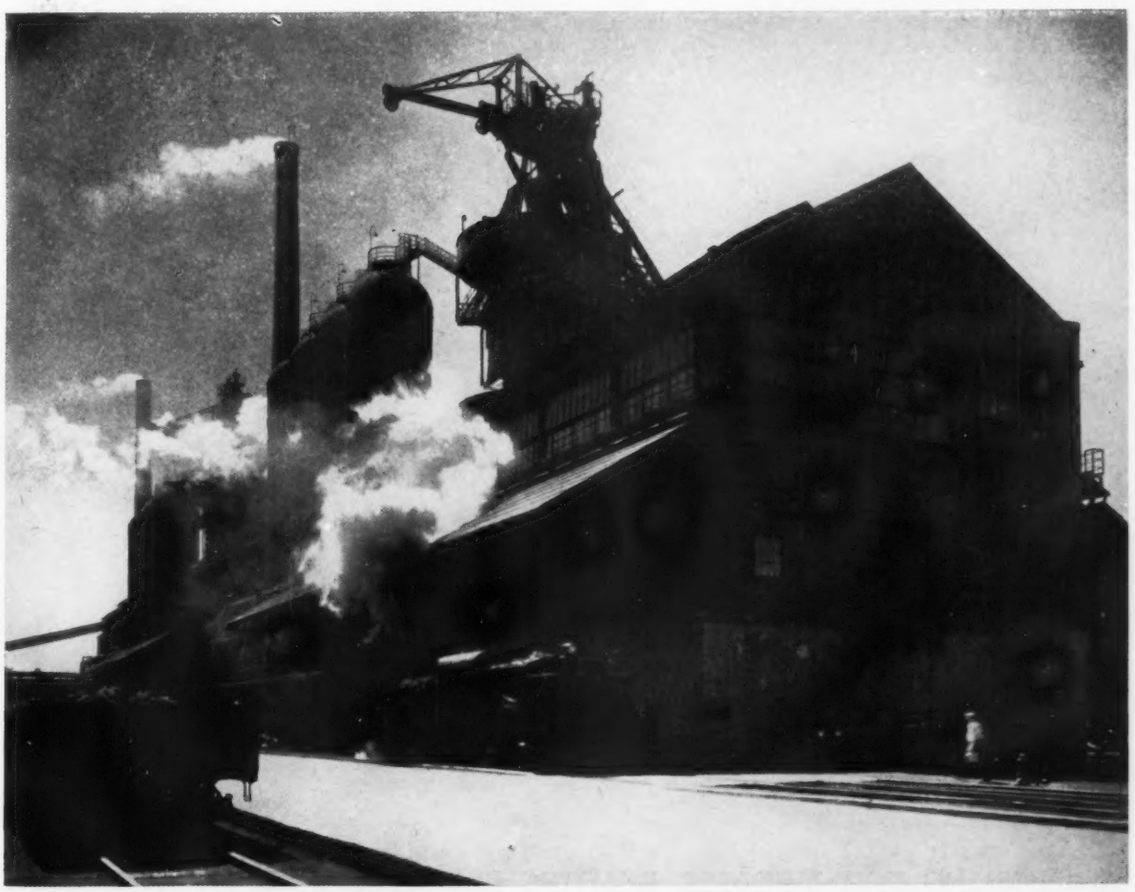
The regular ranks of monitored work space, the banded windows along the outer walls, and the high assembly hall of Albert Kahn's proposed airplane plant all speak the new language, but somehow the applied façade with its monumental porch given to the administration wing seems to look backward to the past (Page 473).

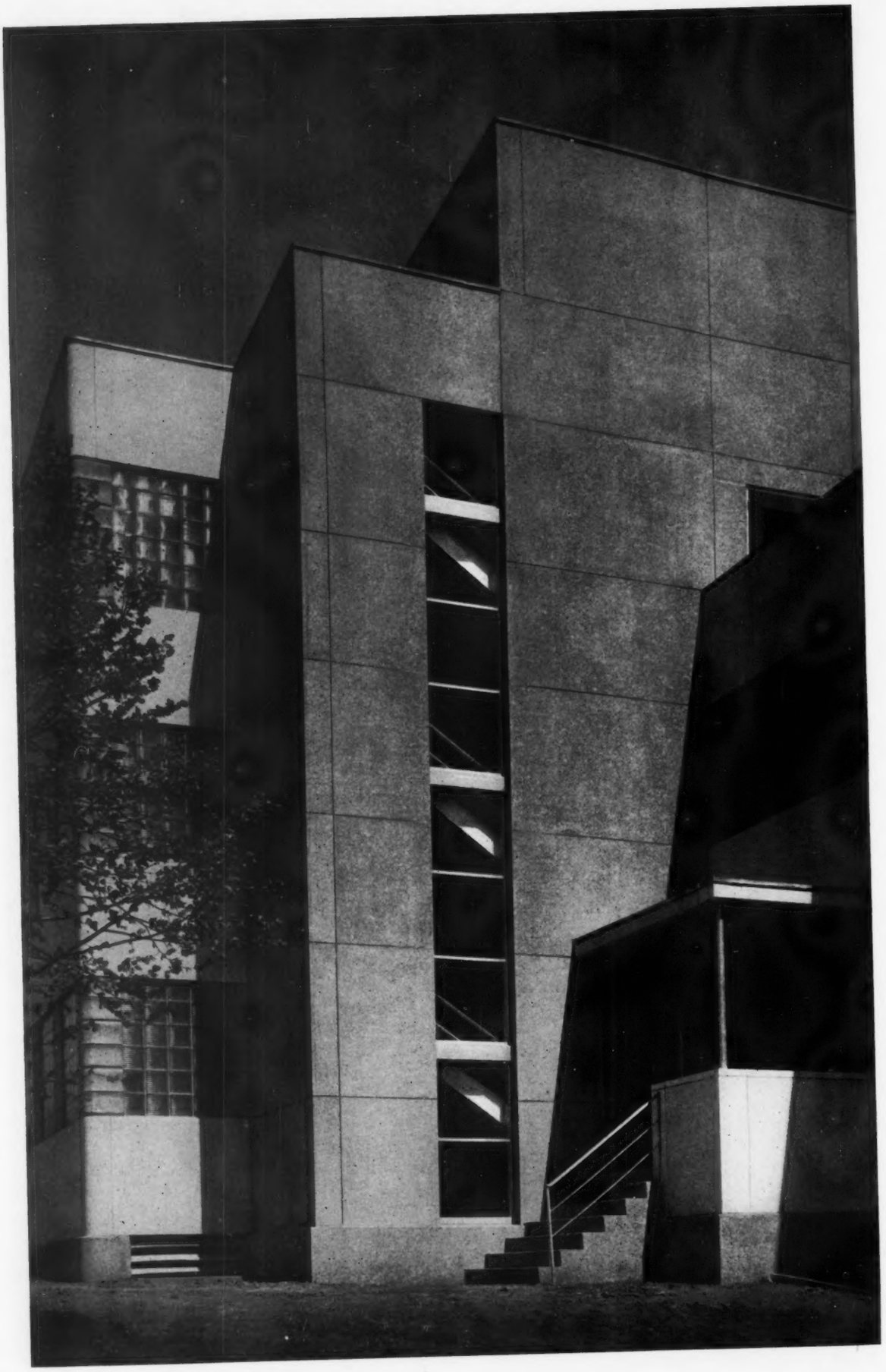
But the architect's work in factory design must be as clearly a cleaning up, a simplifying, a systematizing of the interior structure, as it is a matter of sufficient light and air. Factory interiors are complicated enough at best when the machinery is installed; from the mere viewpoint of efficiency it is necessary to have the cleanest, simplest surfaces, to avoid visual exhaustion and diffusion of interest. In this effort, the welded frames developed for factory construction by the Austin Company are significant and important. The old complicated sawtooth roofs are far different things in effect from such a clean, quiet interior as that given by the 40-foot aisles of the Lincoln Electric Company in Cleveland. Even pleasanter, and as light, is the new type of whaleback roof, with its agreeable structural symmetry; and, when this same quality is applied to the great central high naves which are frequently required, the result is almost monumental (Pages 476-477).

More and more the architect must enter the industrial field. More and more the industrial manufacturers must take advantage of the architect's training and the architect's imagination. In this respect America is far behind many countries in Europe. It has yet to show a plant as beautiful as the Van Nelle plant in Rotterdam or the Austrian Tobacco plant at Linz, or any one of several of the great factories of Sweden or England; but the pioneering work already accomplished has shown the way, and the best of the American work is probably in advance of the European in its efficiency. With the tremendous amounts of factory building necessitated in the near future, the development of American industrial architecture is bound to come of age.



STRUCTURAL WORK WAS STARTED LAST MONTH ON THE NEW METAL STAMPING BUILDING, ABOVE, DESIGNED BY ALBERT KAHN AS THE PRINCIPAL PROJECT OF A HALF-MILLION DOLLAR EXPANSION PROGRAM OF THE WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, AT MANSFIELD, OHIO. THE SIMPLICITY AND REGULARITY OF THE GLASS-WALLED STRUCTURE GIVE IT UNUSUAL DIGNITY. TYPICAL OF THE INDUSTRIAL SCENES OF TODAY, IN WHICH TRUE ARCHITECTURAL BEAUTY IS FOUND, IS THIS DRAMATIC PHOTOGRAPH OF BLAST FURNACES IN THE RIVER ROUGE FORD PLANT, REPRODUCED FROM GEORGE NELSON'S BOOK REVIEWING KAHN'S EARLIER WORK, "INDUSTRIAL ARCHITECTURE OF ALBERT KAHN"





A BUILDING FOR MEDICAL RESEARCH — BY SHERLEY W. MORGAN

A BUILDING FOR MEDICAL RESEARCH

BY DON GRAF

The more proficient a man gets at golf, the easier his game appears to the bystander. To watch a good golfer is to be convinced that any one should be able to drive a ball two hundred yards. On the other hand, a dub will make the pastime look like one of the most difficult and complicated sports ever invented.

So it is with design. Such a labored and unsatisfactory building as the New York Public Library, or the plan of the World's Fair, would lead one to believe that the *programs* were of vast complexity. Conversely, a clear-cut and well-organized solution makes it seem that the design problem was an exceedingly simple one.

To provide proper spaces for thousands of test animals, laboratories for scientists, and dependencies, all under accurately controlled conditions, is not a simple architectural commission. In the Squibb Institute for Medical Research at New Brunswick, N. J., we find a building that is particularly satisfying in its expression of function, in its flexibility of plan, and in its simplicity of structural arrangement. The solution of the architect, Sherley W. Morgan of Princeton, N. J., is so simple and direct that it makes it appear to have been an easy problem.

An analysis of the requirements in plan revealed that various multiples of a 7′-0″ module could be made to provide rooms for any present or future requirement. Accordingly, the structural system is based upon 21′-0″ bays having three elements of fenestration in the facade. By simple rearrangement of partitions, it is possible to create rooms of 7 feet, 14 feet, 21 feet, and so on. The construction of the building, although of permanent, quality materials, is economical. The economy results from the simplicity of the structural framing and the details of floors, walls and roofs. The foundation is of poured concrete, and that portion of the wall which is above the ground contains an exposed granite aggregate.

The superstructure walls are faced with 2″ architectural concrete slabs. These slabs are in large sections with joints every 7 feet horizontally. The sills of the glass block "windows" are cast integrally with the slabs, making erection of the facing material extremely simple. The mullions are 2″ architectural concrete slabs with molded faces and in a contrasting color. These large slabs are held to the building by anchors engaging the structural spandrel. The anchors are cast integrally with the slab. The manufacturer of the architectural concrete slabs first cast the largest pieces required by the building. By reducing the size of the mold, the next largest size of slabs was produced. This process continued down to the smallest pieces, resulting in the utmost economy of forms at the factory. The entrance is in a darker color and is the only place on the building where a large number of repeated uses of forms was not possible.

Two air spaces provide an exterior wall of low thermal conductivity, since air conditioning of the building is vital to the laboratory processes. There are no movable sash windows in the building, natural lighting being supplied by glass block panels. This

THE SIMPLE DIGNITY OF THE ENTRANCE IS EXPRESSIVE OF THE FUNCTION OF THE BUILDING

THE SYMMETRICAL FACADE IS THE CLOSING ELEMENT OF THE PLOT PLAN, BEING LOCATED AT THE END OF THE PLAN AXIS. THE RESTRAINED POLYCHROMY OF THE EXTERIOR ADDS TO THE INTEREST OF THE DESIGN WITHOUT DETRACTING FROM ITS DIGNITY. THE STRUCTURE WAS PLANNED ON A 7′-0″ MODULE. PHOTOGRAPHS OF THE LABORATORY BUILDING ARE BY SIGURD FISCHER, UNLESS OTHERWISE NOTED

handling of fenestration further reduces the heat gain or heat loss to facilitate controlled conditions within the building.

The interior faces of walls and the partitions were required to be sanitary and easily maintained so machine-made terra cotta ashlar was selected.

The floors are of keystone steel beam construction with a topping of concrete. The floor finish in some cases is of granolithic. In the corridors the finish is industrial plank. This material has sufficient resilience to make it very quiet and is at the same time easily maintained.

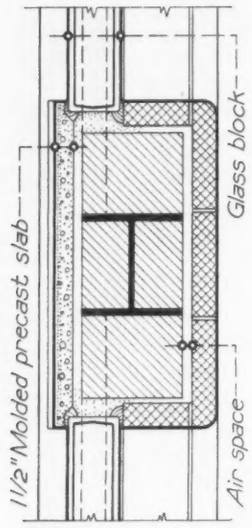
Ceilings are of conventional plaster on metal furring. Lighting units have been mounted flush with the ceiling surface and are individually controlled. Prismatic lenses provide an even distribution of artificial light on the working plane. The sprinkler piping is concealed so that only the sprinkler heads appear on the finished ceiling.

The provision of ventilation, water, air, gas, and electricity to the rooms, together with facilities for servicing this bewildering and complicated piping, was solved by using a furred space in the corridors with removable Transite panels for access. These panels are metal-edged and provide a very pleasing ceiling for the corridors—at the same time allow immediate inspection of the service lines. A rearrangement of rooms may require a new set of outlets at any time. The removable corridor ceiling panels permit the easy installation of new connections wherever and whenever they may be needed.

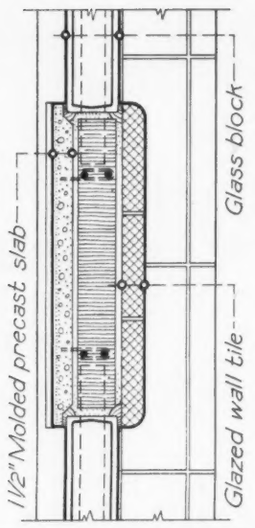
THE TOP ILLUSTRATION SHOWS A TYPICAL LABORATORY. NOTE THE FLUSH LIGHTING FIXTURES AND THE SURFACE TYPE SPRINKLER HEADS. THE LOWER PHOTOGRAPH SHOWS A TYPICAL CAGE ROOM IN WHICH TEST ANIMALS ARE HOUSED. TERRA COTTA WALL FACING AND CONCRETE FLOORS WITH FLOOR DRAINS PROVIDE FOR THE EASY MAINTENANCE OF SANITATION. THE ENTIRE BUILDING IS AIR CONDITIONED

Joseph W. Molitor

THIS VIEW SHOWS THE REMOVABLE TRANSITE CEILING PANELS WHICH ALLOW ACCESS TO THE MECHANICAL LINES. THE FLOOR IS INDUSTRIAL PLANK AND THE WALLS ARE OF TERRA COTTA ASHLAR. CEILING OUTLETS FOR AIR CONDITIONING ALTERNATE WITH SPRINKLER HEADS AND LIGHTING FIXTURES. THE GLASS BLOCK PANEL AT THE END OF THE CORRIDOR SUPPLIES A PLEASANTLY DIFFUSED LIGHT

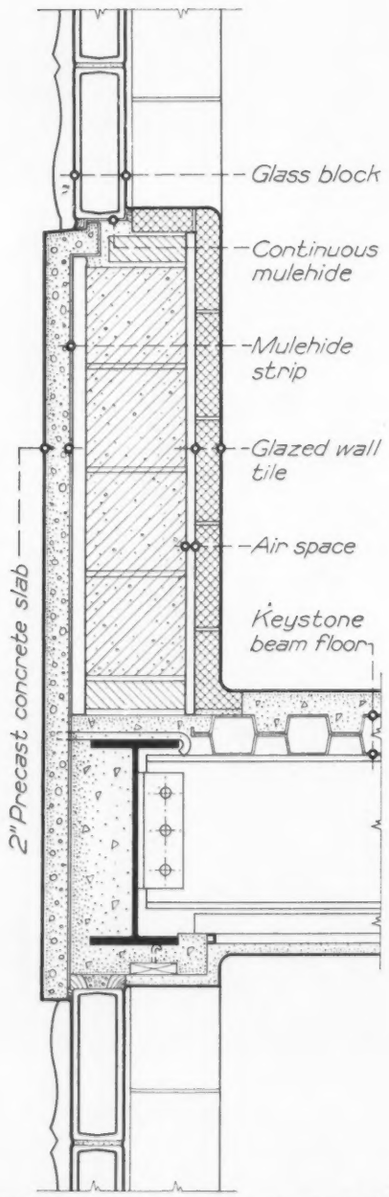


PLAN OF PIER

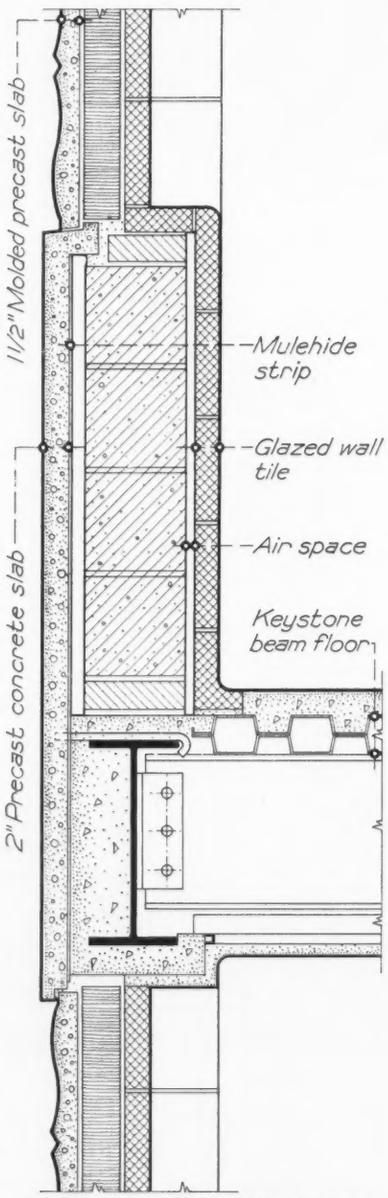


PLAN OF MULLION

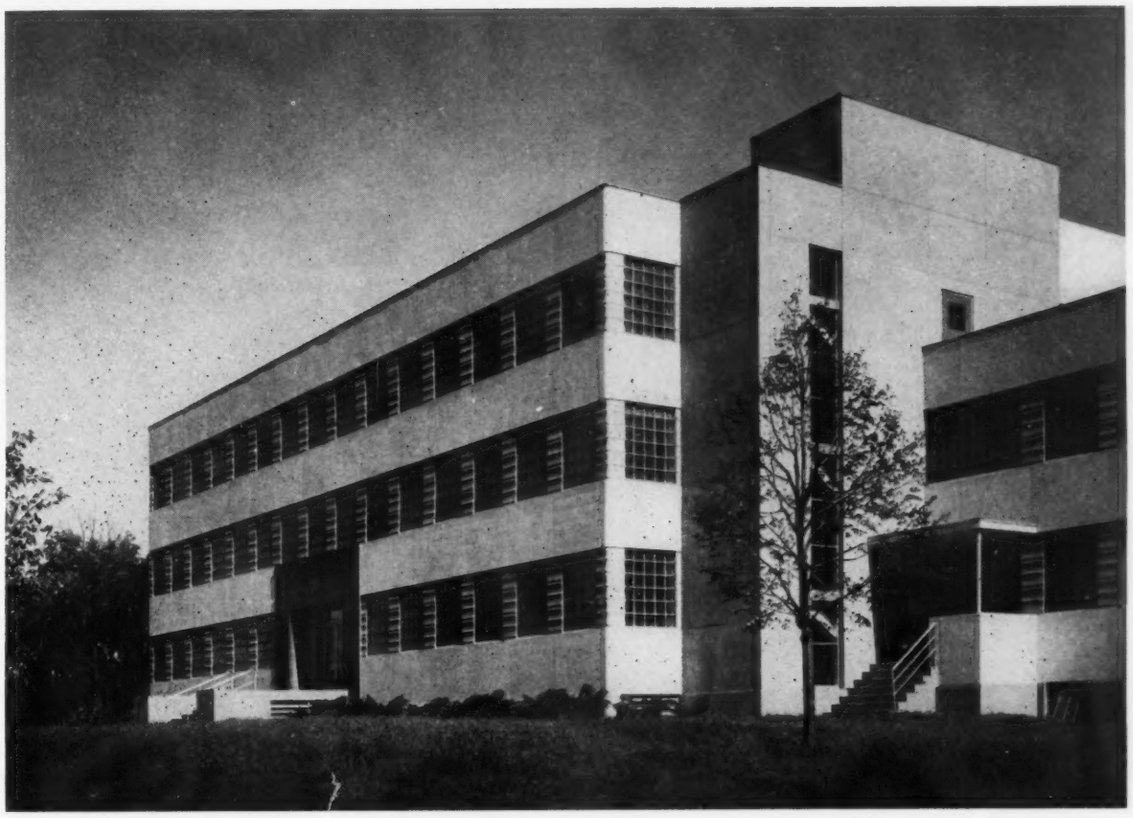
THESE SECTIONS ARE TYPICAL OF THE ENTIRE BUILDING AND SHOW THE SIMPLICITY OF THE WALL AND FLOOR CONSTRUCTION. DOUBLE AIR SPACES CUT DOWN HEAT TRANSFERENCE. MACHINE-MADE TERRA COTTA ASHLAR FORMS THE INTERIOR FINISH



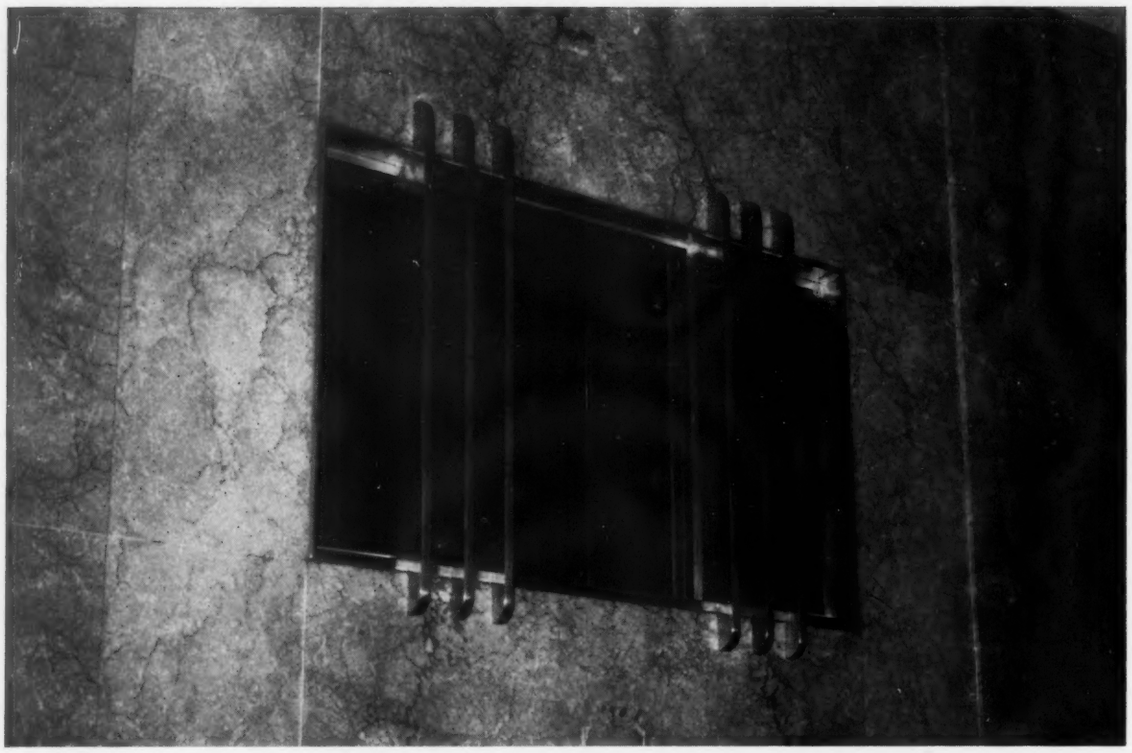
SECTION THRU GLASS BLOCKS



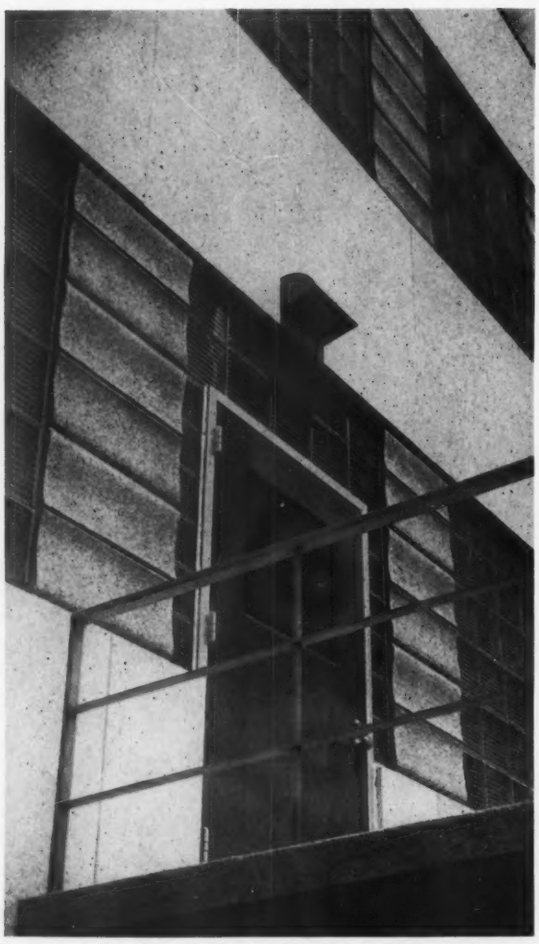
SECTION THRU MULLION

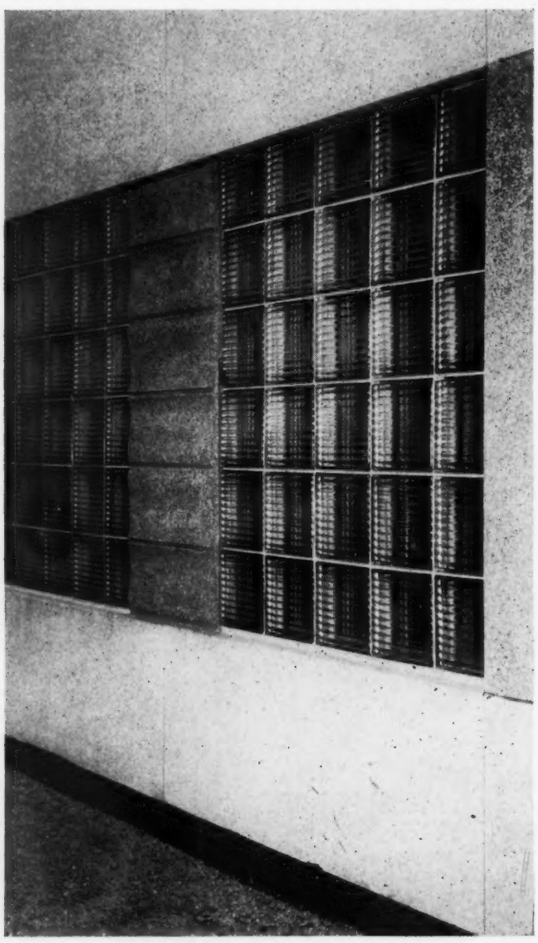


THE STRONG HORIZONTALITY OF THE DESIGN INDICATES THE FLUIDITY OF THE INTERIOR PARTITION ARRANGEMENT. THE VERTICAL CIRCULATION IS EXPRESSED ON THE EXTERIOR BY STOPPING THE HORIZONTAL MOVEMENT WITH MASONRY AND THE INTRODUCTION OF EFFECTIVE VERTICAL FENESTRATION



SATIN FINISH ALUMINUM HAS BEEN USED FOR THE INFORMATION WINDOW ABOVE AND FOR THE RAILINGS LOWER LEFT. IN THE PHOTOGRAPH AT THE LOWER RIGHT THE RELIEF OF THE MULLION CARRIES THROUGH THE HORIZONTAL JOINTS OF THE GLASS BLOCKS, ACCENTUATING THE UNITY OF THE DESIGN





A BUILDING FOR MEDICAL RESEARCH — BY SHERLEY W. MORGAN

PERSIAN BRICKWORK OF THE 14TH CENTURY—MOSQUE AT TABRIZ

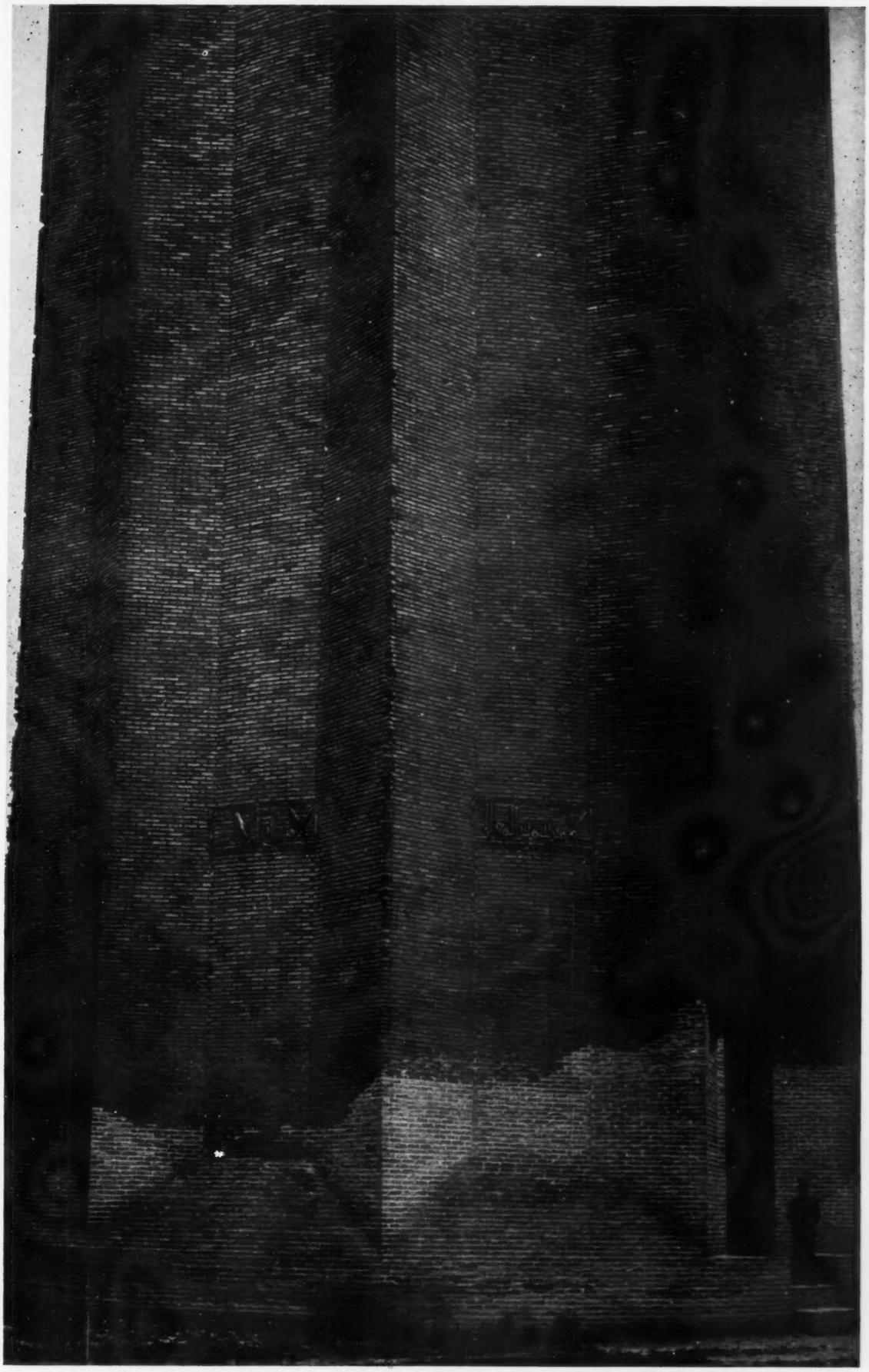
OLD PERSIAN BRICKWORK

BY DONALD N. WILBER

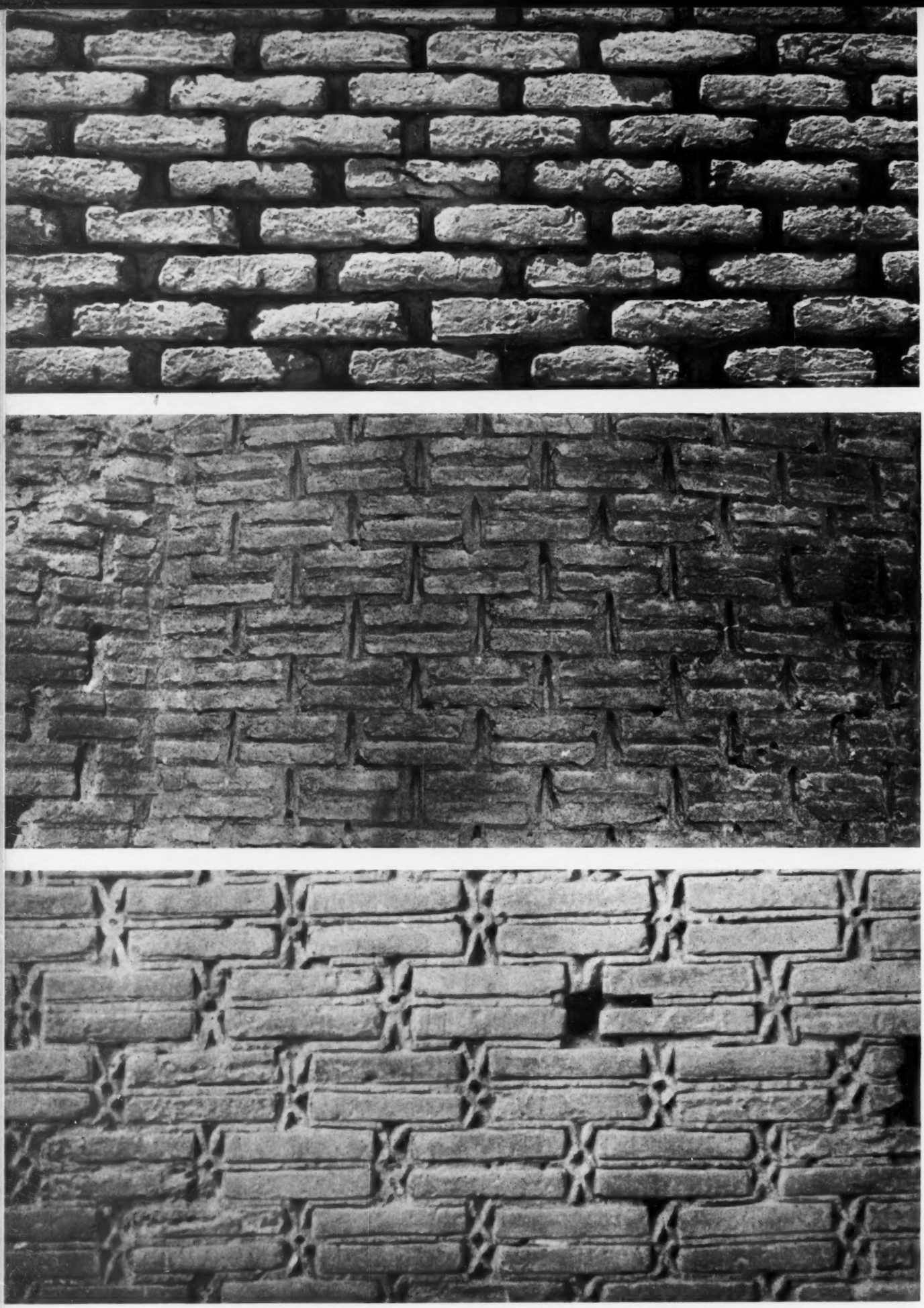
Fired brick has been the principal material used in the Islamic architecture of Persia since the Arab invasions in 640 A.D., and in no other region has there been such attention to the structural and decorative possibilities of the medium during the period from 950 A.D. until about 1300 A.D. Especially were there countless experiments in use of brick, which first emerged from the traditional plaster coating and then ran an entire cycle—from a primitive use of the material through a developed period and finally to a dazzling but decadent pattern of display.

The Persian brick unit is not the size and shape familiar to Western practice, but is a square ranging from eight to ten inches on a side and approximately two inches in thickness. Thus walls only one brick in width could be built, while in walls of a more permanent nature the fact that each brick penetrated so far into the wall made the problem of binding together bricks in each horizontal course less acute than it is with our own narrower bricks. Construction was always extremely simple. Some wall surfaces bear traces of scaffold holes, but the general practice in building a wall was, after a height of a few feet had been attained, for the mason to stand on top of the wall as he built it and place in position the bricks thrown up by his helper.

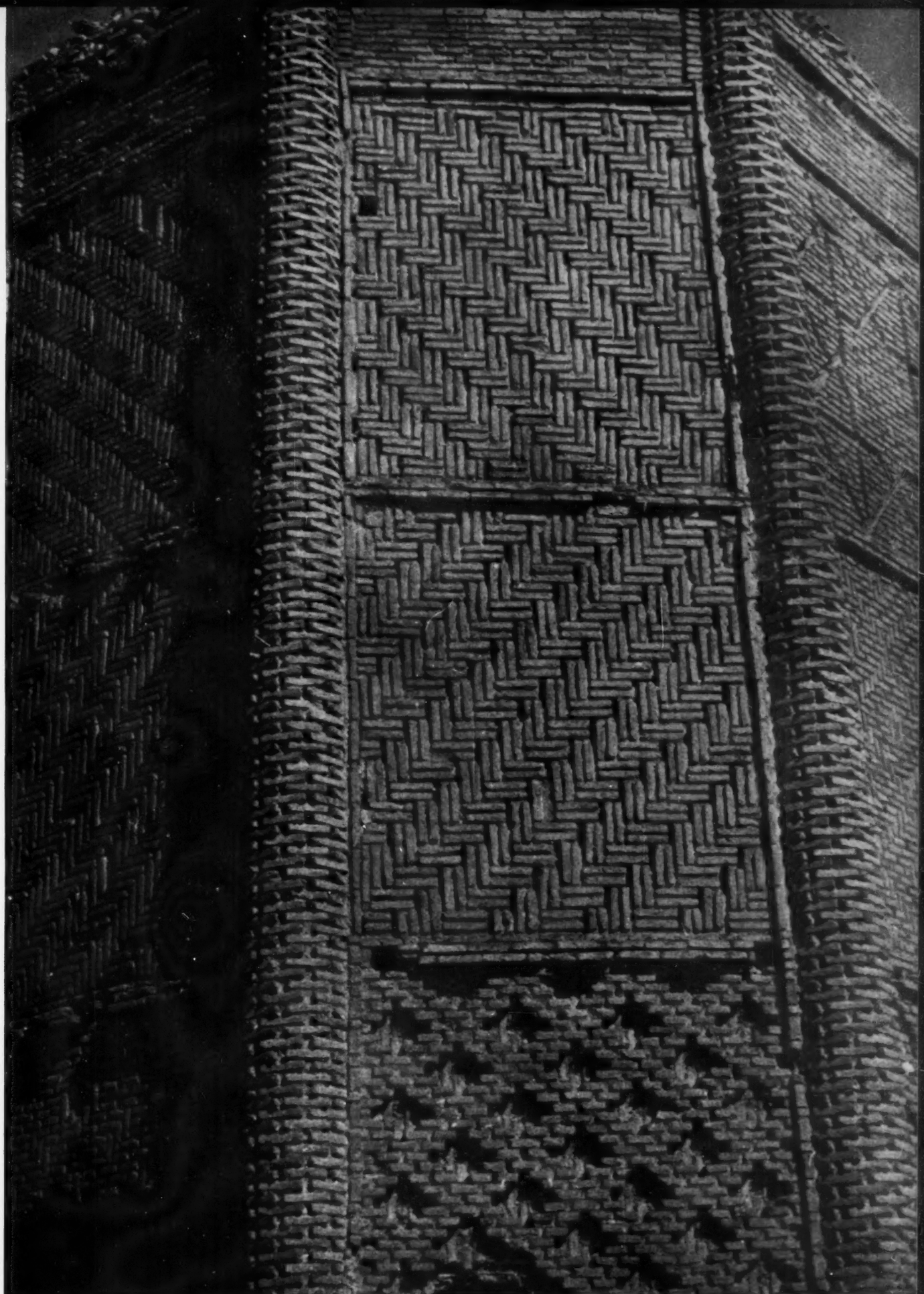
We can assume that the bonding was at first a simple running or common bond with broken joints. From a very early period the rising joints were made wider than the horizontal ones, usually about the thickness of a brick, while the horizontal ones were kept quite narrow. The rising joints were then raked while the horizontal ones were flush-pointed. Herringbone and diagonal square patterns appeared in the bonding along with much more complicated patterns. This increasing elaboration led to two fresh treatments: either the bonding maintained the flush surface plane of the wall or it was done in actual relief with certain bricks projecting beyond or recessed behind the uniform wall surface. The flat surface bonds had an extreme coherence and reflected a consistence in design from the core of the structure outwards, but the relief patterns became increasingly elaborate, with the result that each unit of the design had to be smaller in scale. At first the smallest units were still cut from standard bricks and were squares with each side the length of the thickness of a brick. The separation of facing and core, which started in the relief patterns, was adapted to the flush surface bonds so that all bonding patterns became a mere sheathing coat plastered against the constructional walls. Finally the rising joints were accentuated with plaster plugs, which were cut or stamped with floral or geometric designs or Arabic words, and glazed tiles appeared. These tendencies produced some striking patterns, but had within themselves the germs of a final technical decay.



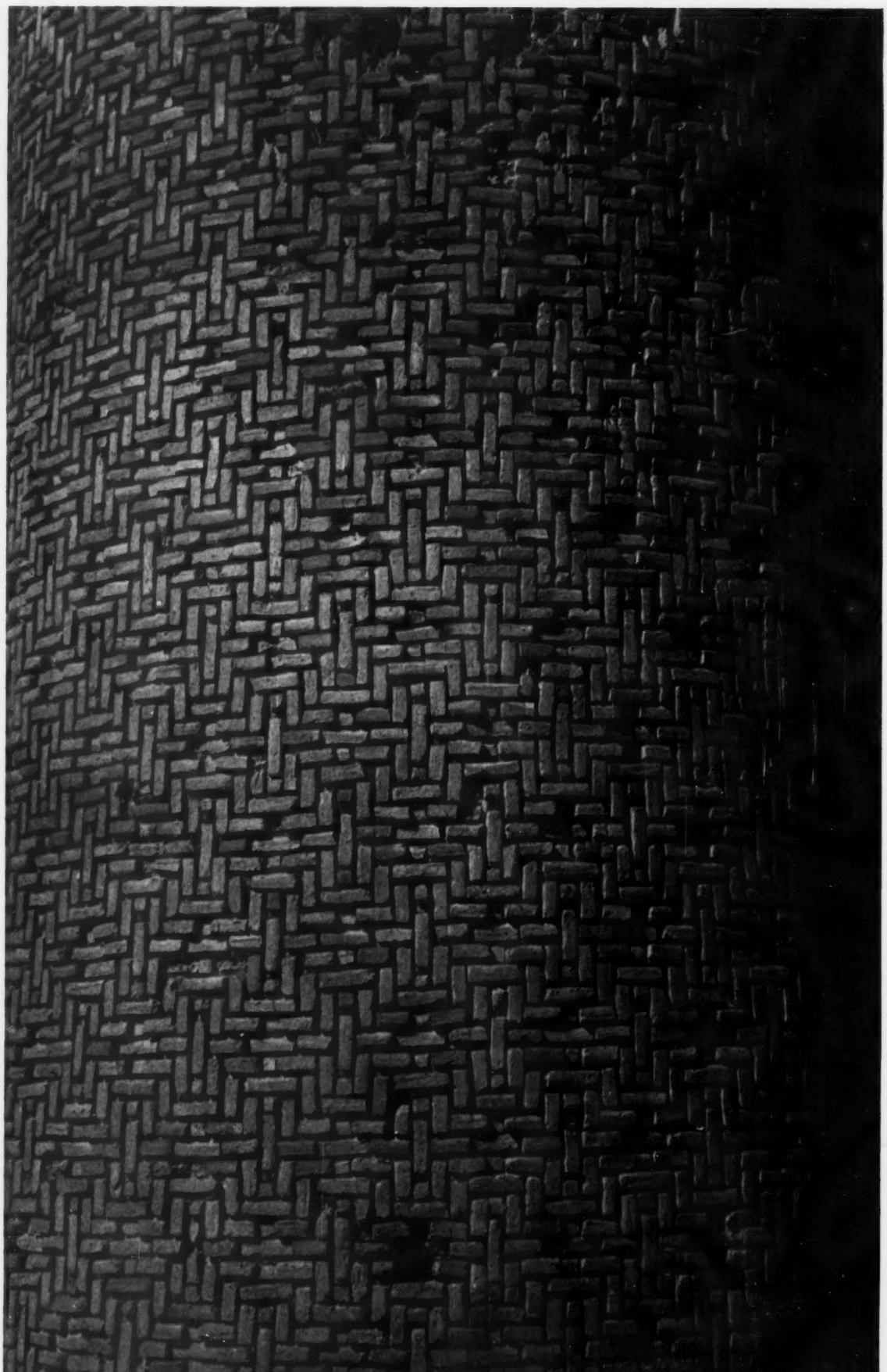
THE GREAT TOMB TOWER CALLED THE GUNBAD-I-QABUS, ON THE WESTERN SHORE OF THE CASPIAN SEA, WAS BUILT IN 1006 A.D. THE STAR-SHAPED PLAN STRENGTHENS THE BRICK WALL OF COMMON BOND



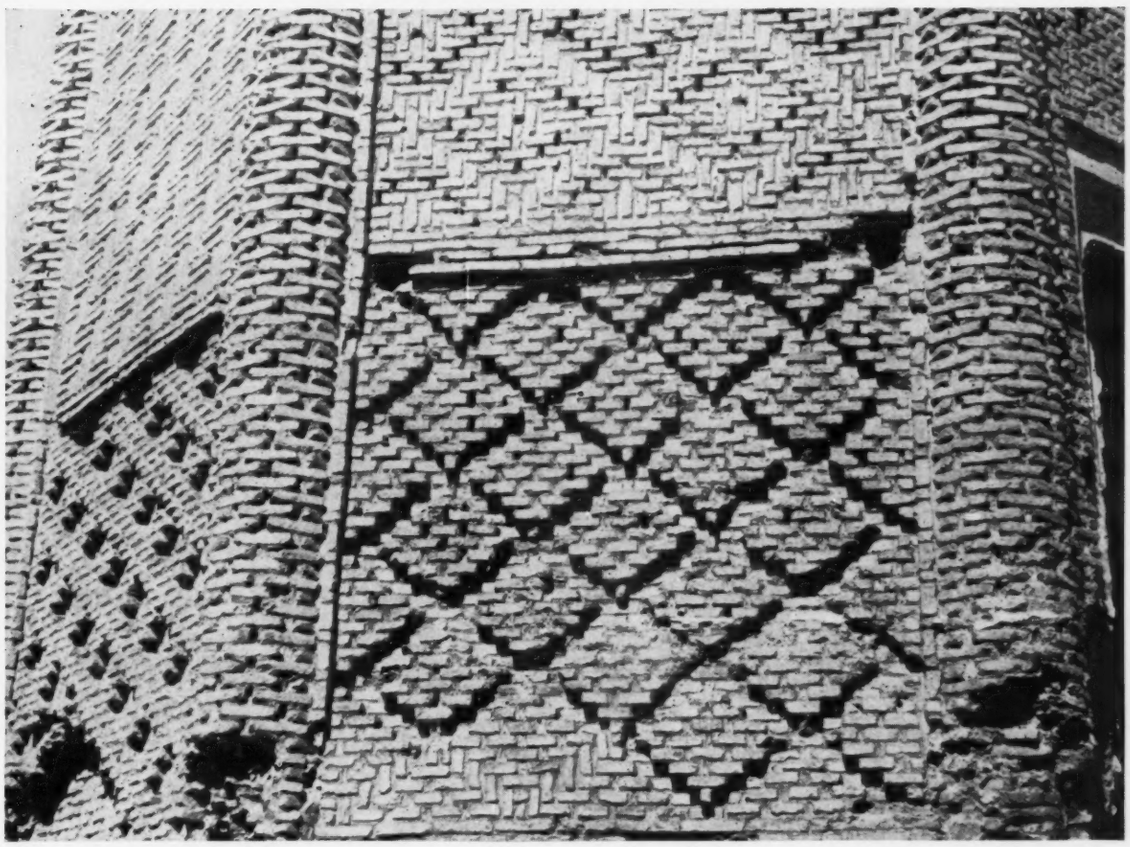
THREE EXAMPLES OF ANCIENT PERSIAN BRICKWORK—SHOWING WIDENED VERTICAL JOINTS (TOP), DOUBLE-BRICK, RAKED VERTICAL JOINTS (CENTER), AND STAMPED PATTERN IN THE VERTICAL JOINTS



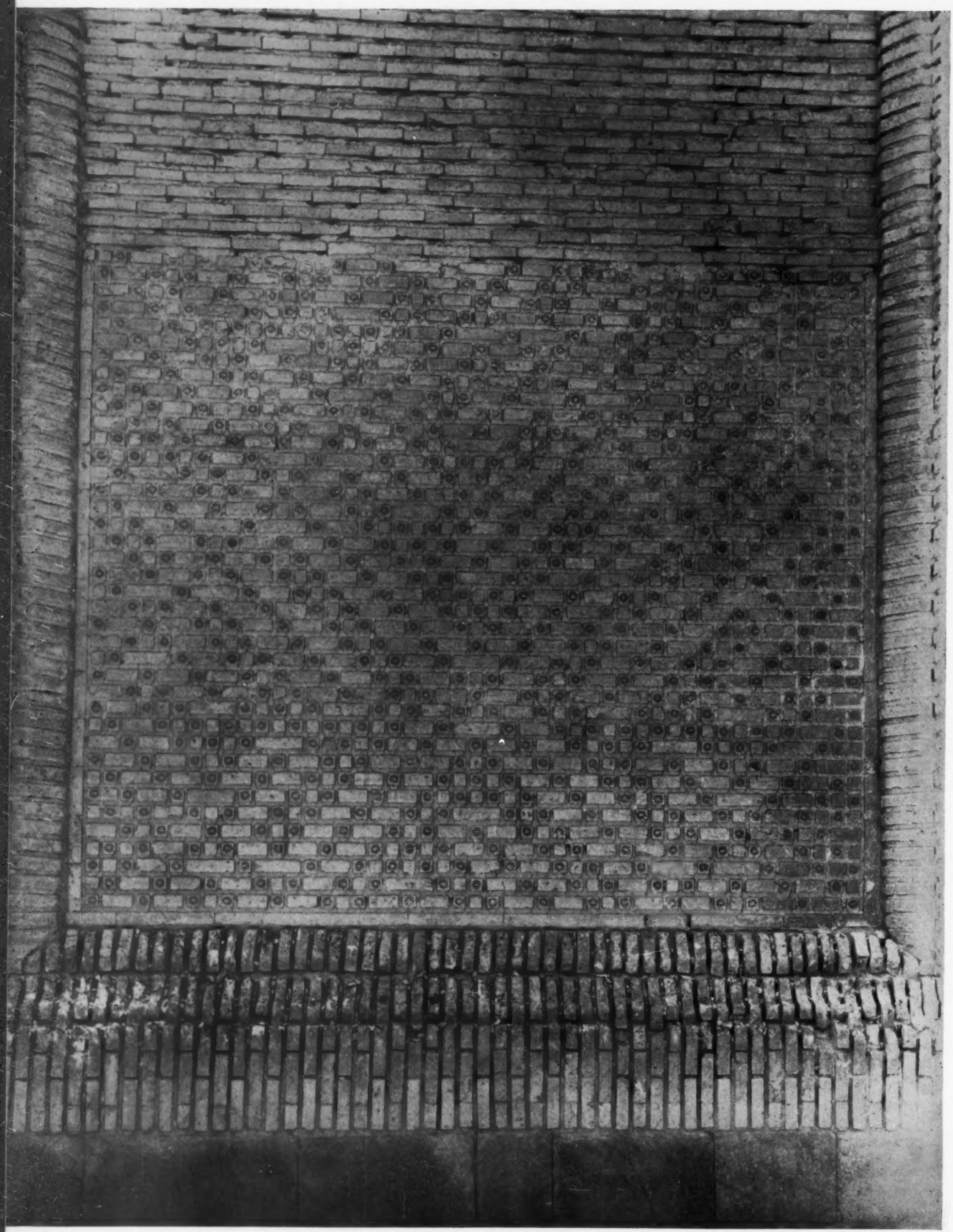
CHARACTERISTIC BRICK PATTERNS FOUND ON A TOMB TOWER AT DAMAVAND, PROBABLY DATING FROM THE 12TH CENTURY. THE ISLAMIC BUILDERS WERE ALSO INGENIOUS IN EVOLVING FORMS



THIS LOFTY MINARET AT GAZ IS CONSIDERED A REPRESENTATIVE EXAMPLE OF BRICKWORK OF THE 12TH CENTURY, WHEN ELABORATE AND BOLD PATTERNS ENRICHED THE MONUMENTAL STRUCTURES OF PERSIA

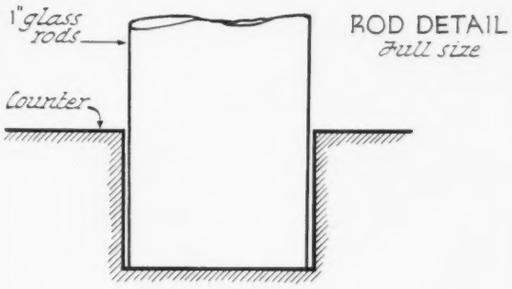


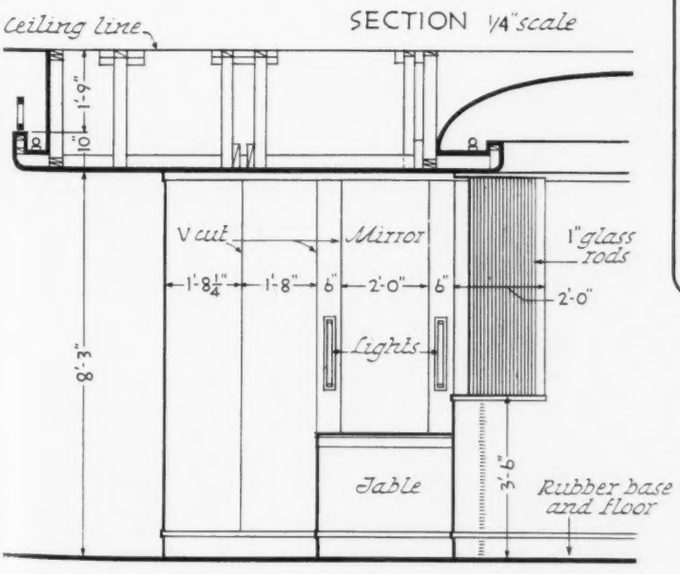
THE SIMPLICITY OF THE PERSIAN PATTERNS, WHICH APPEAR SO RICH WHEN EXTENSIVELY USED, IS APPARENT IN THESE DETAIL PHOTOGRAPHS OF TOMB TOWERS AT DAMAVAND (TOP) AND AT QUMM

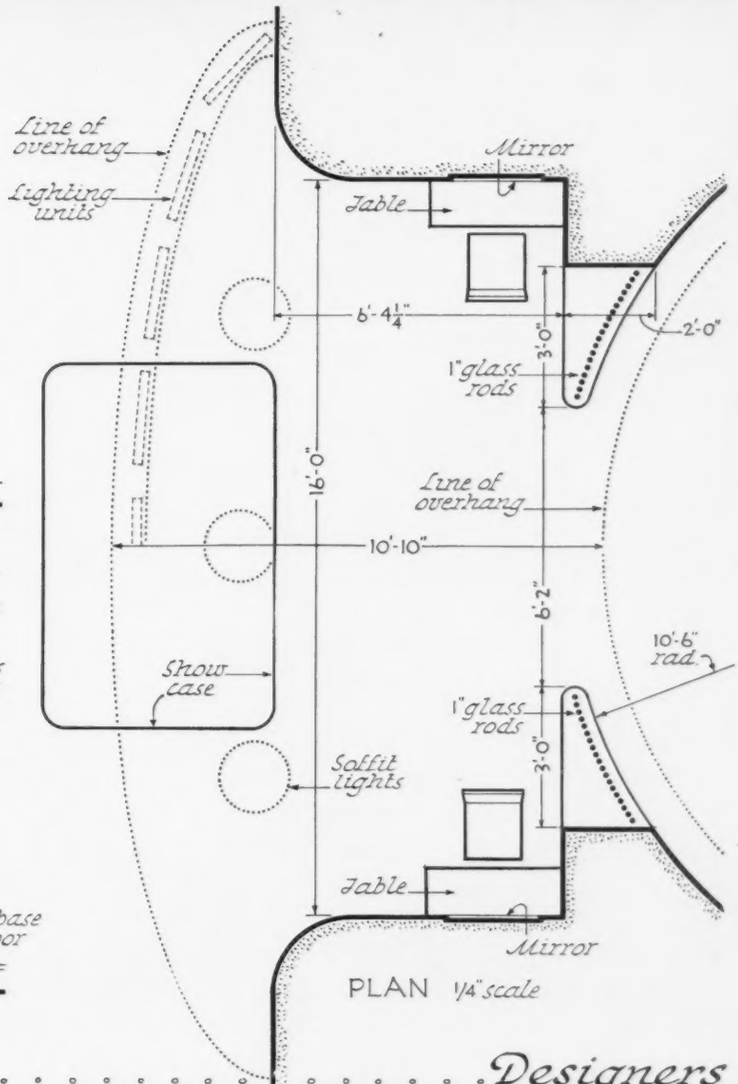


TERRA COTTA INSETS SPELLING A HOLY NAME — PERSIAN TOMB

Photos by WILLIAM G. BLAND

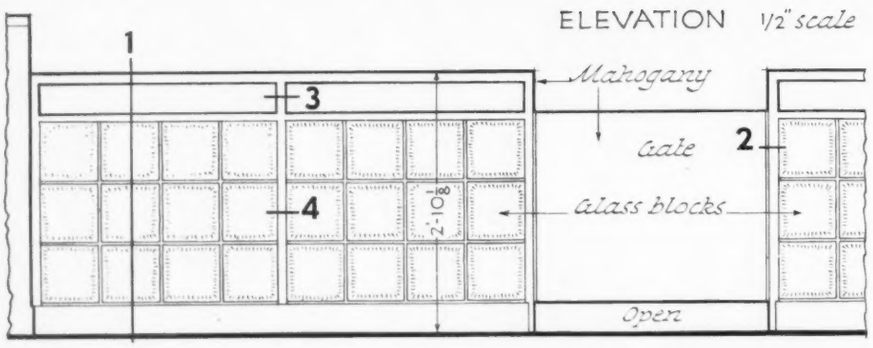


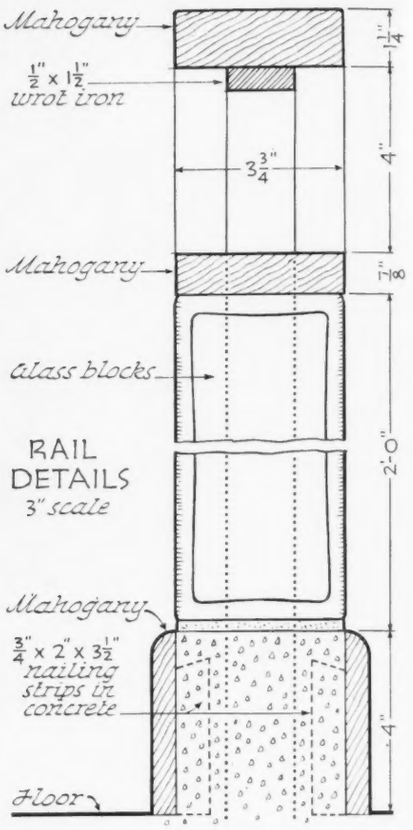




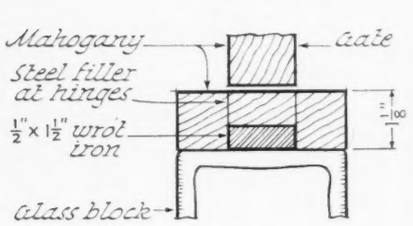
EMIL J. PAIDAR, INC. . . . . Designers

Photos by F. S. LINCOLN

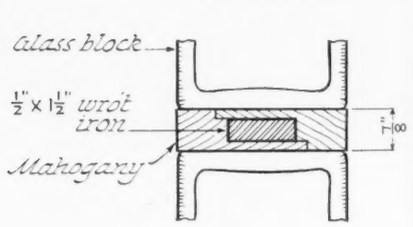




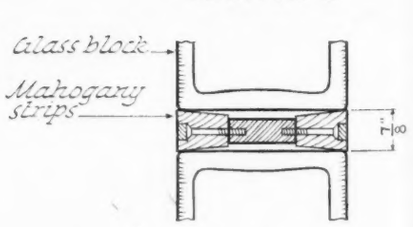
SECTION 1



SECTION 2

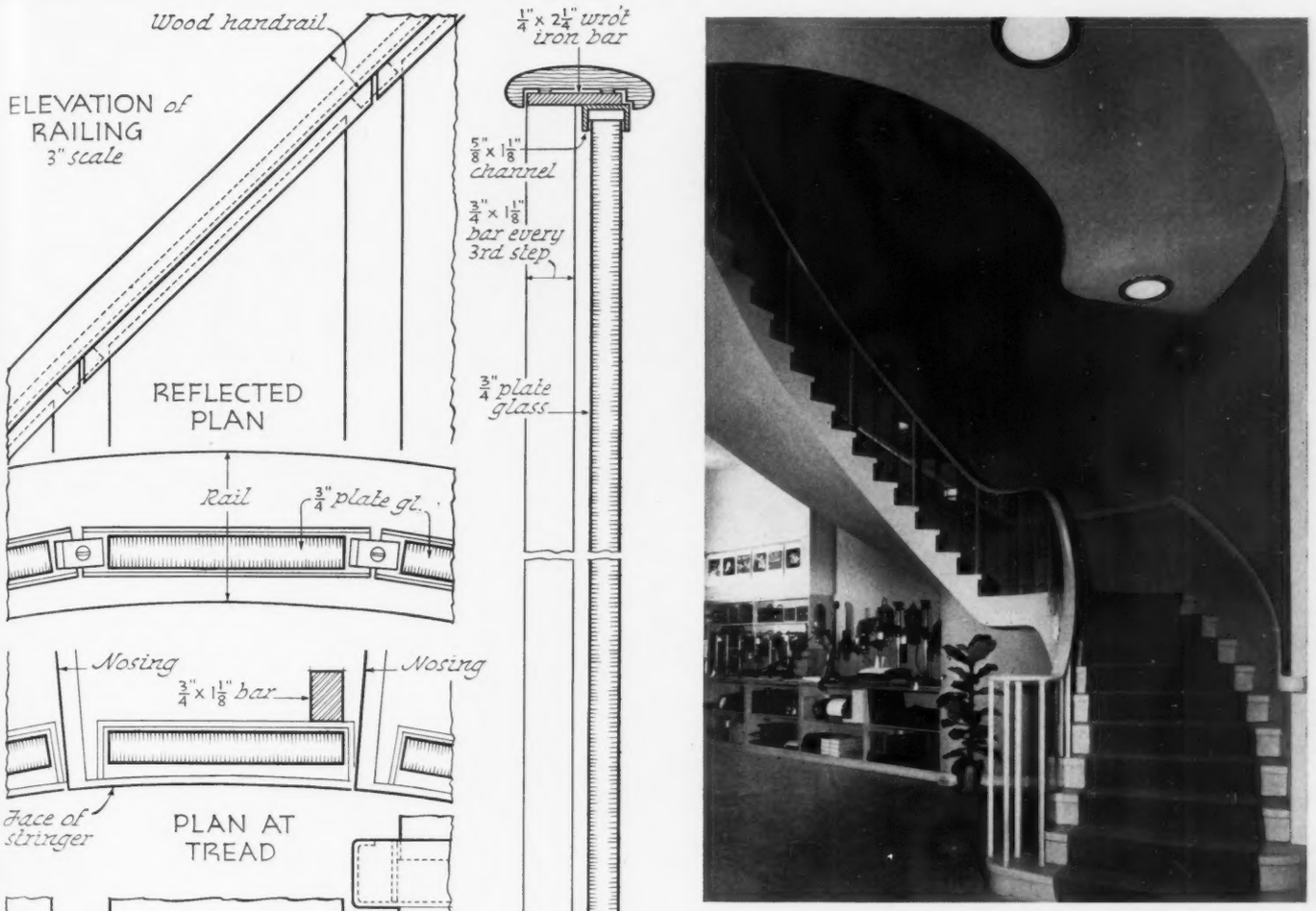


SECTION 3



SECTION 4

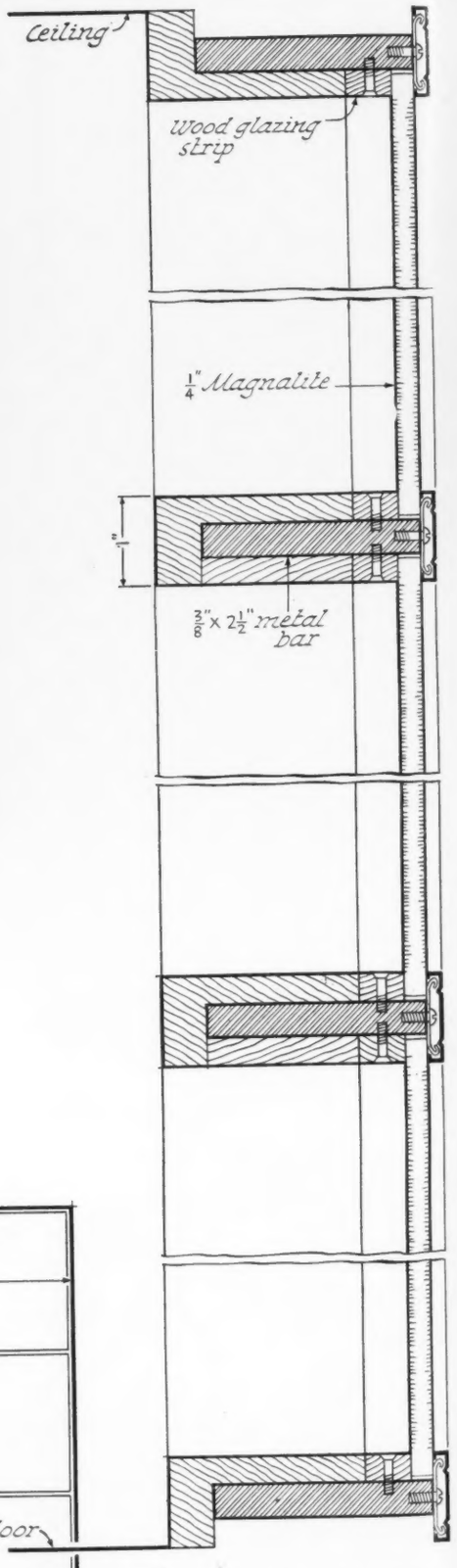
JOSEPH DOUGLAS WEISS . . . . . *Architect*



ROBERT M. DAMORA

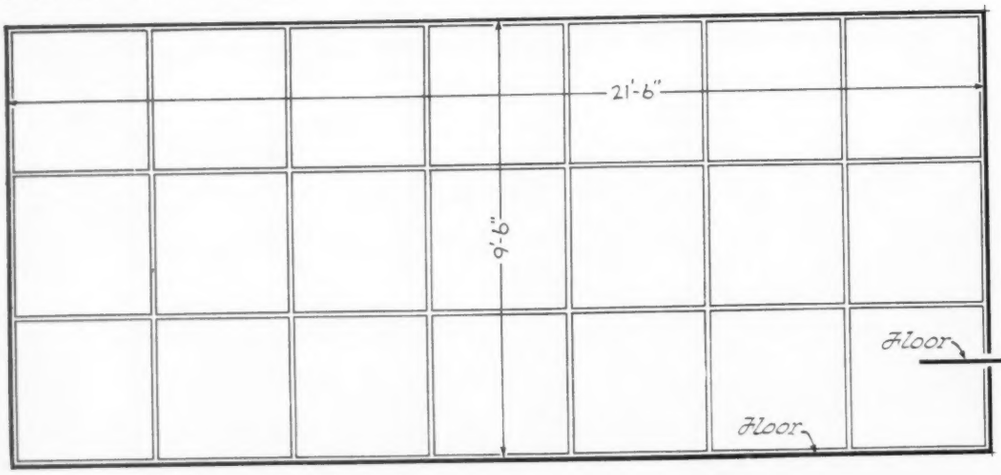
JOSEPH DOUGLAS WEISS *Architect*

ROBERT M. DAMORA



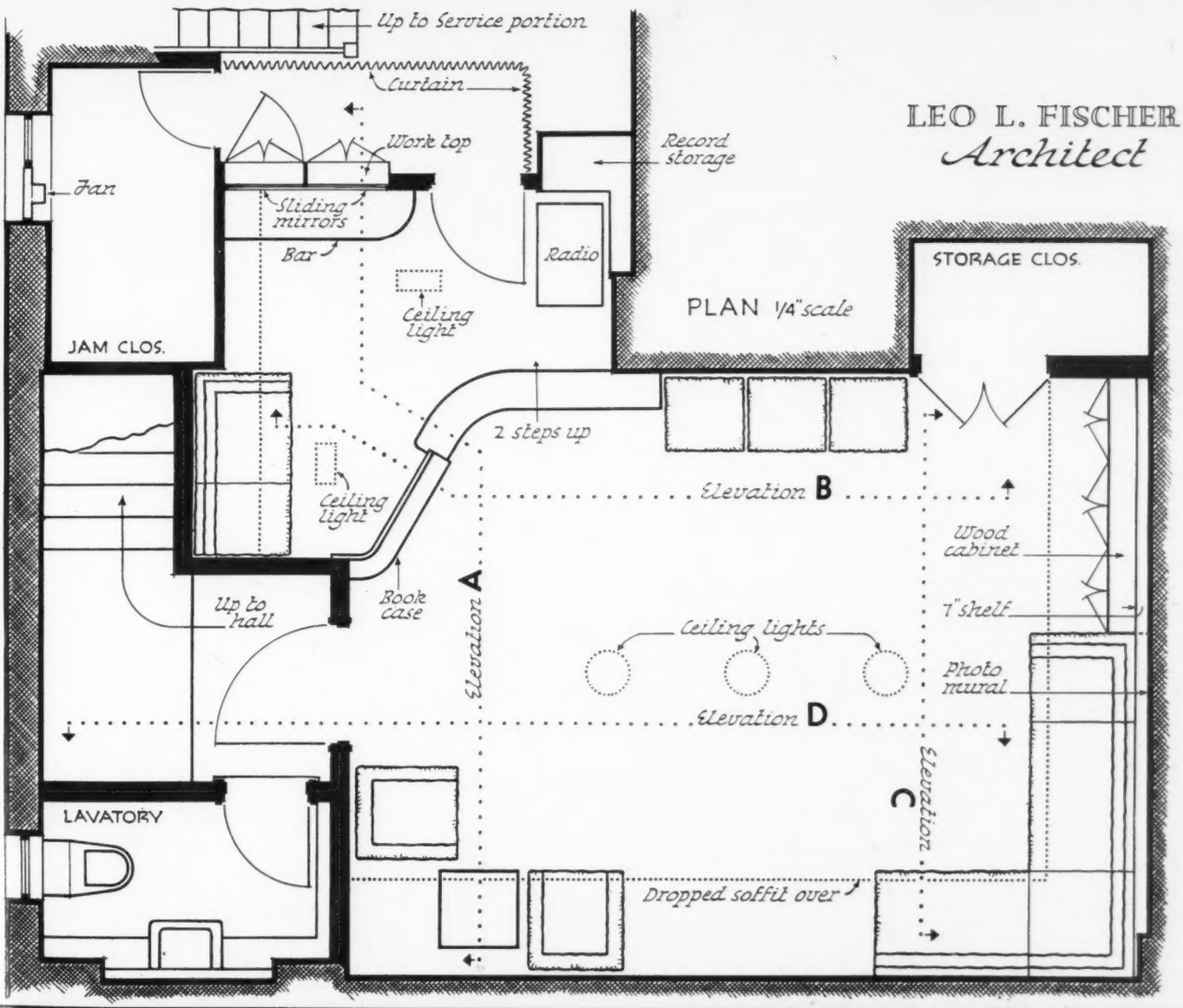
WINDOW SECTION
Half full size

ELEVATION 1/4" *scale*



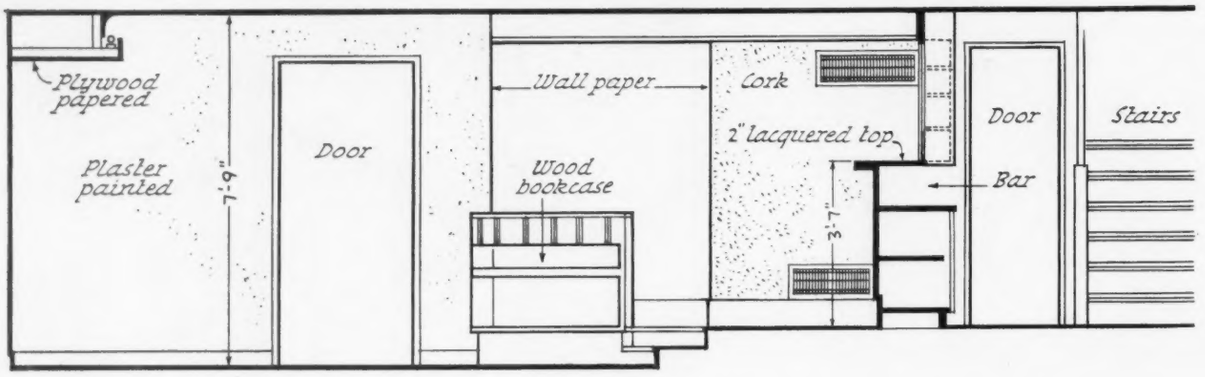
JOSEPH DOUGLAS WEISS . . . . . *Architect*

Photos by THURMAN ROTAN

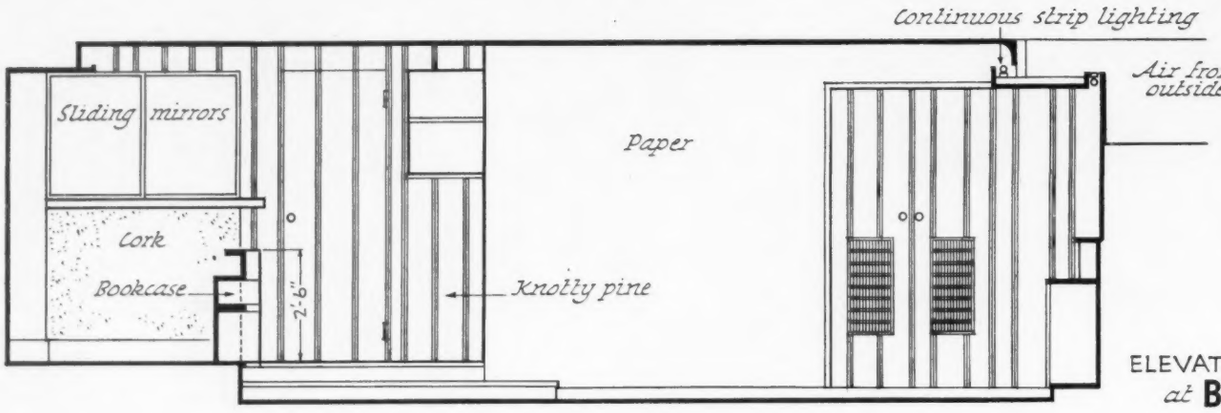


LEO L. FISCHER
Architect

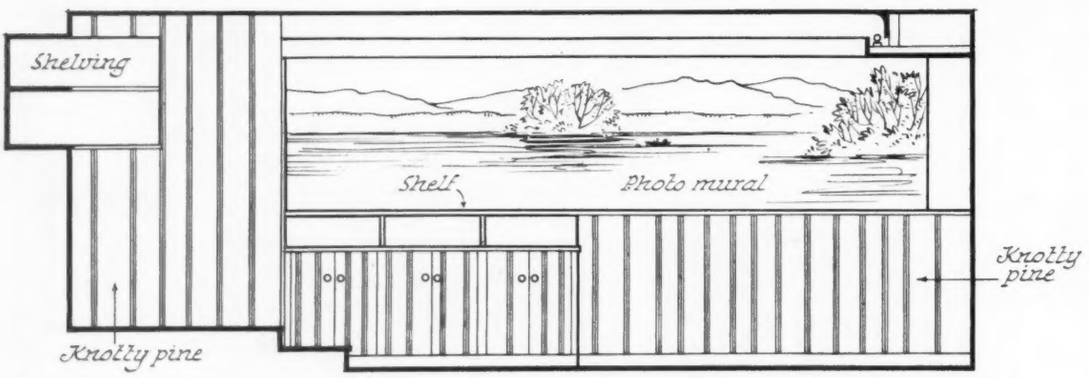
GAME ROOM



ELEVATION at **A**



ELEVATION at **B**

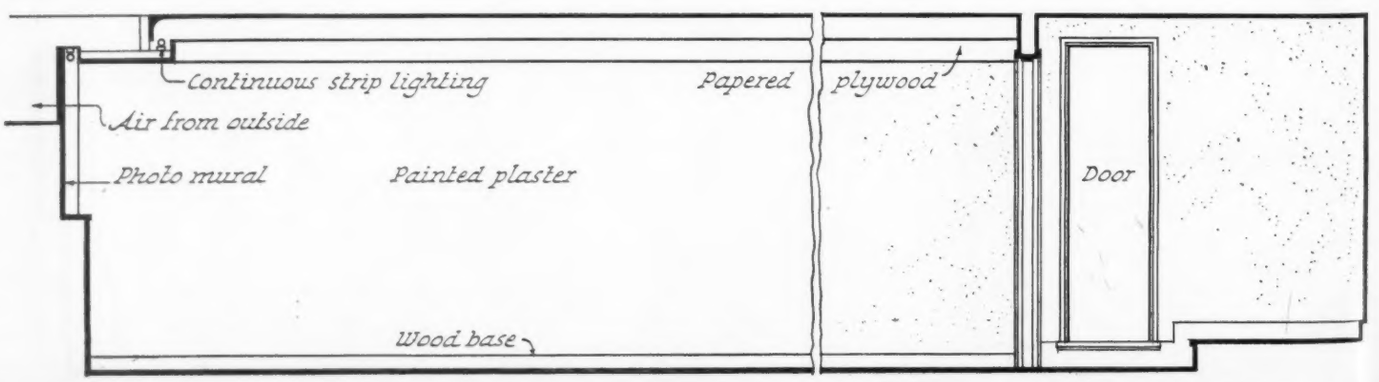


ELEVATION at **C**

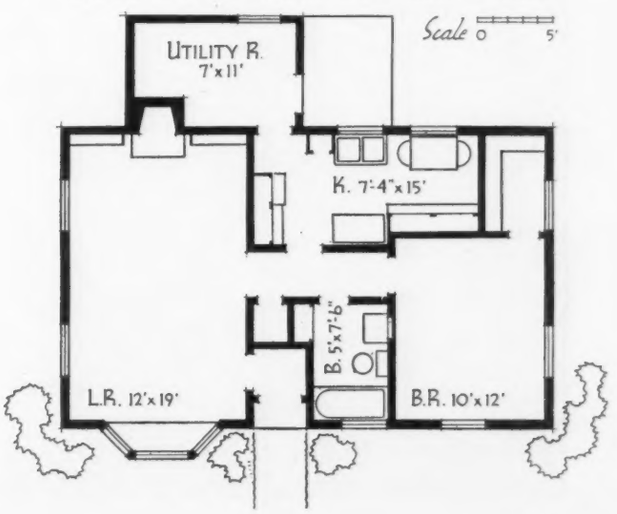
All elevations at ¼" scale

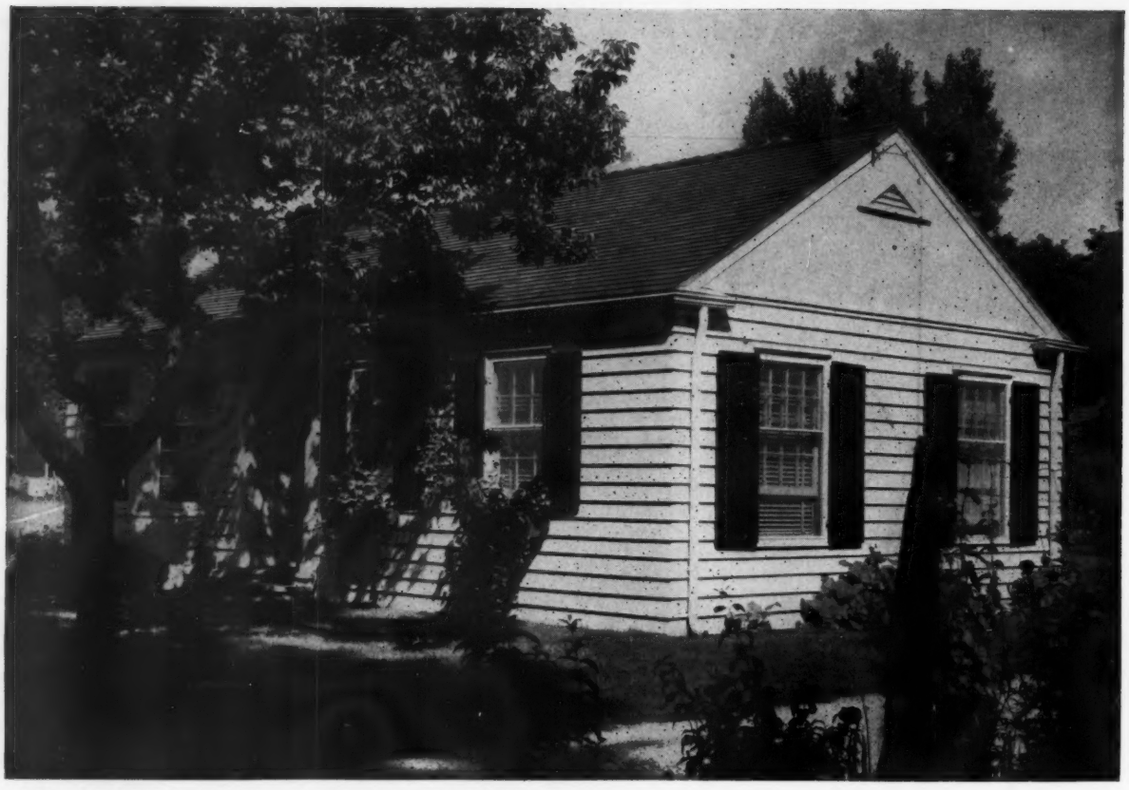
LEO L. FISCHER . . . . . *Architect*

ELEVATION at **D**



DONALD WILLIAM HUNTER, ARCHITECT, OF GROSSE POINTE, DESIGNED THE PLEASING COTTAGE SHOWN HERE AND OVERPAGE FOR THE REV. F. ROBERT SCHREIBER OF FRANKLYN, MICHIGAN. THE SIMPLICITY OF THE EXTERIOR REFLECTS THE DIRECT AND CONVENIENT PLAN. THERE IS NO BASEMENT AND THE HOUSE IS JUST 8" ABOVE GRADE. THE COTTAGE OCCUPIES A SITE THAT HAD BEEN USED BEFORE AND THE DESIGNER CONSIDERED THE LOCATION OF THE EXISTING TREES AND PLANTING. THE PHOTOGRAPHS ARE BY ROBERT W. TEBBS, NEW YORK AND DETROIT





ANOTHER VIEW OF THE SCHREIBER COTTAGE DESIGNED BY DONALD WILLIAM HUNTER, ARCHITECT, OF GROSSE POINTE, MICHIGAN, SHOWS THE COMPACTNESS OF THE DWELLING. THE BOW WINDOW OF THE LIVING ROOM, BELOW, IS THE PRINCIPAL FEATURE AND IS EXECUTED WITH EXTREME SIMPLICITY

PENCIL POINTS DATA SHEETS

Prepared by DON GRAF, B.S., M.Arch.

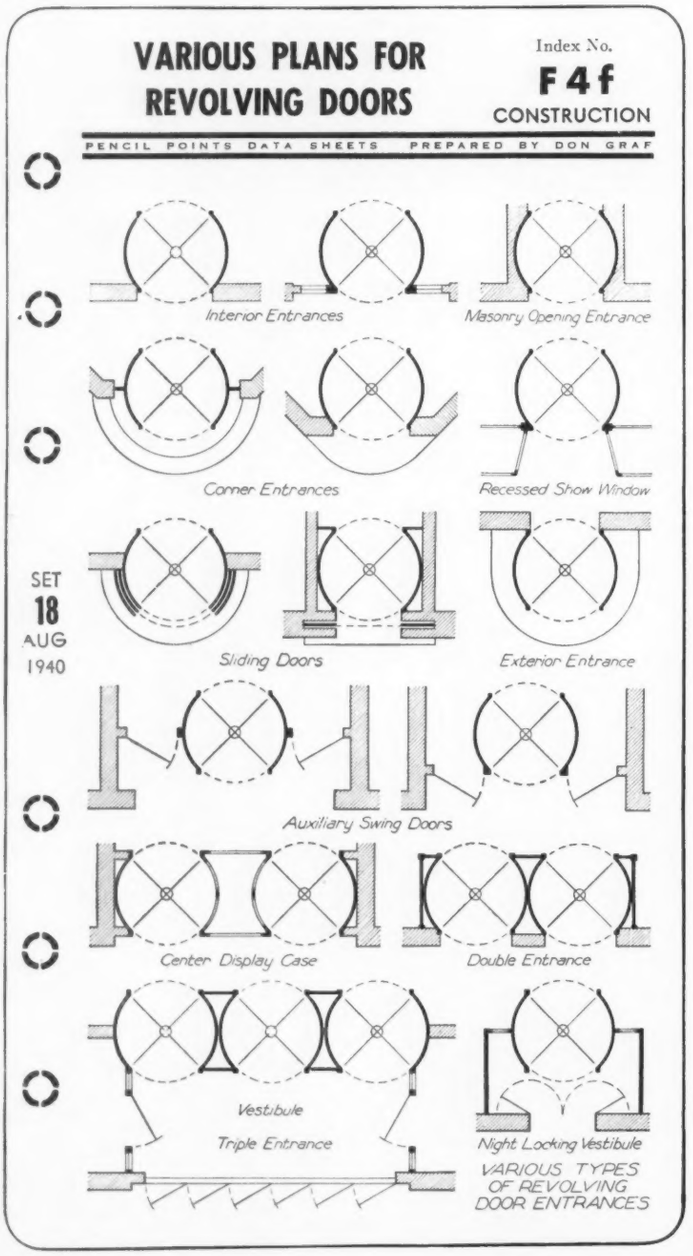
DISREGARD OF THE OBVIOUS

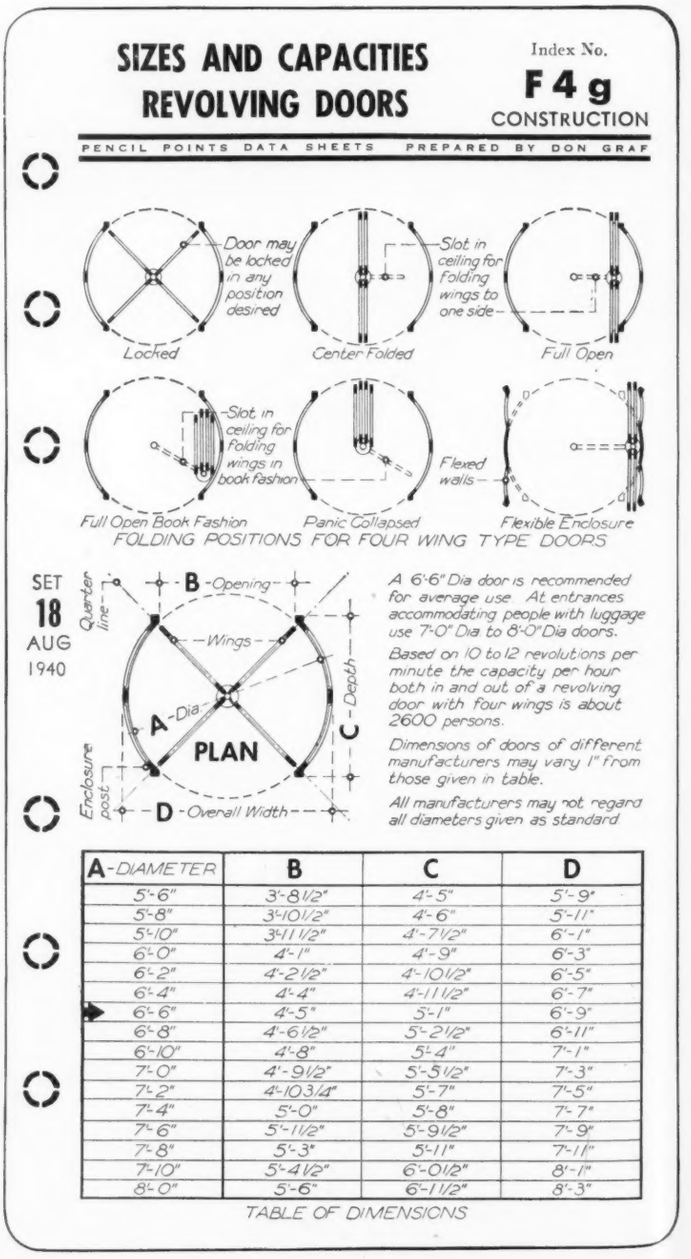
One of the chapters of the A.I.A. has issued a standard application for employment. A paragraph preceding the blank spaces to be filled in states, "To promote harmony and efficiency within the organization and to insure a satisfactory and equitable basis of understanding, the principals of the organization and the members of their staffs, before entering upon any association shall clarify to their mutual satisfaction the conditions and limitations of that association."

No more worthy phrasing of the employer-employee relationship could possibly be asked for. The employing office fills in on the blanks its custom with regard to:

1. Office hours and regulations
2. Overtime remuneration
3. Vacation
4. Sick leave
5. Legal holidays
6. Termination of employment
7. Compensation during jury duty
8. Other conditions

It is that Number 8, "other conditions," that interested us. For instance, is there a water-cooler




SIZES AND CAPACITIES REVOLVING DOORS
Index No. F4g CONSTRUCTION
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF
Door may be locked in any position desired
Slot in ceiling for folding wings to one side
Locked
Center Folded
Full Open
Slot in ceiling for folding wings in book fashion
Flexed walls
Full Open Book Fashion
Panic Collapsed
Flexible Enclosure
FOLDING POSITIONS FOR FOUR WING TYPE DOORS
SET 18 AUG 1940
Quarter line
B - Opening
Wings
A - Dia
C - Depth
PLAN
Enclosure post
D - Overall Width
A 6'-6" Dia door is recommended for average use. At entrances accommodating people with luggage use 7'-0" Dia to 8'-0" Dia doors.
Based on 10 to 12 revolutions per minute the capacity per hour both in and out of a revolving door with four wings is about 2600 persons.
Dimensions of doors of different manufacturers may vary 1" from those given in table.
All manufacturers may not regard all diameters given as standard

A - DIAMETER	B	C	D
5'-6"	3'-8 1/2"	4'-5"	5'-9"
5'-8"	3'-10 1/2"	4'-6"	5'-11"
5'-10"	3'-11 1/2"	4'-7 1/2"	6'-1"
6'-0"	4'-1"	4'-9"	6'-3"
6'-2"	4'-2 1/2"	4'-10 1/2"	6'-5"
6'-4"	4'-4"	4'-11 1/2"	6'-7"
6'-6"	4'-5"	5'-1"	6'-9"
6'-8"	4'-6 1/2"	5'-2 1/2"	6'-11"
6'-10"	4'-8"	5'-4"	7'-1"
7'-0"	4'-9 1/2"	5'-5 1/2"	7'-3"
7'-2"	4'-10 3/4"	5'-7"	7'-5"
7'-4"	5'-0"	5'-8"	7'-7"
7'-6"	5'-1 1/2"	5'-9 1/2"	7'-9"
7'-8"	5'-3"	5'-11"	7'-11"
7'-10"	5'-4 1/2"	6'-0 1/2"	8'-1"
8'-0"	5'-6"	6'-1 1/2"	8'-3"

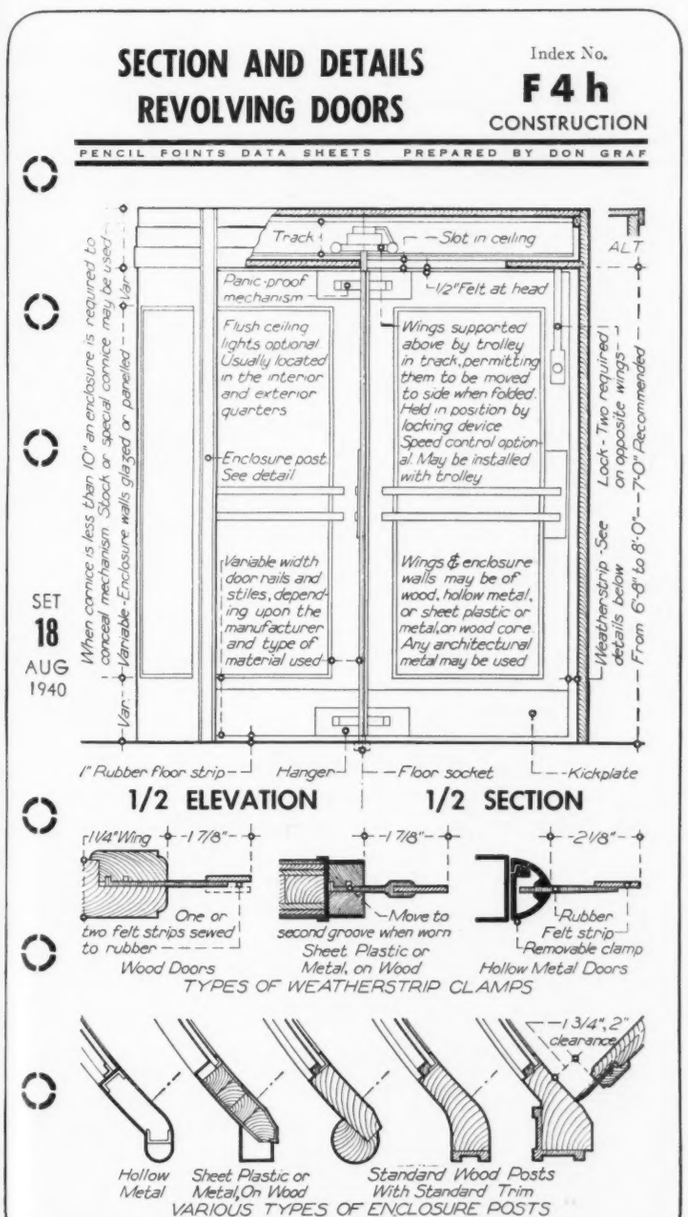
TABLE OF DIMENSIONS

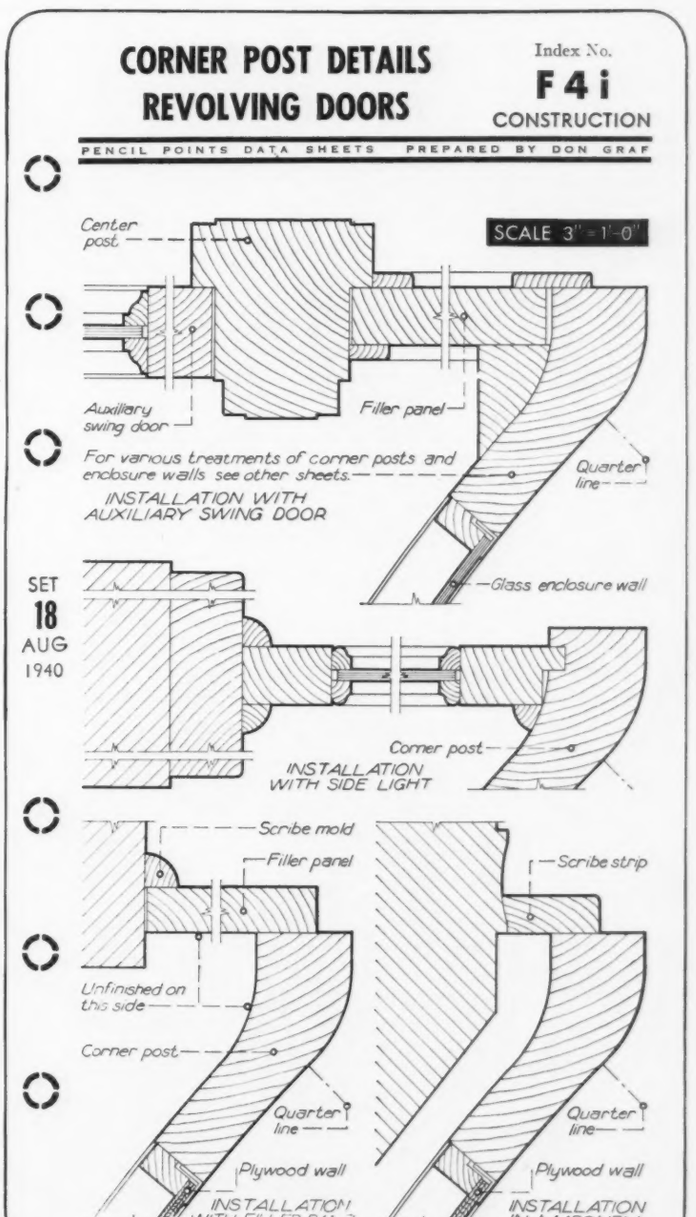
in the drafting room? We can remember an office where the draftsmen were forced to buy their own ice in order to have cold drinking water during the hot months of the summer.

Will the draftsmen be expected to draw on a wobbly table, or one of these factory-made contraptions with a 5-inch deep apron to skin his knees? The saw-horse table is hard to beat provided the horses have not been made out of lath. A solid and generous drafting table certainly promotes harmony and efficiency.

Is there an office telephone in a booth, where the employees may make calls with some privacy? The telephone that is out in the drafting room so that every one can hear, may discourage private calls; but when, as is sometimes the case, a personal call is unavoidable, it wastes the time of the entire drafting force, who are involuntarily distracted from their work by the conversation. The gain in one respect will more than offset the loss in the other.

Is there adequate light at the drafting tables or are some of the men expected to work in semi-darkness? For large drafting rooms it is difficult to find office space with long narrow rooms with north light for the ideal drafting condition. Nevertheless, an employee who is forced to pursue the eye-tiring task of drafting in dim light cannot and should not be expected to work as efficiently as a man who is favorably located.


SECTION AND DETAILS
REVOLVING DOORS
Index No.
F 4 h
CONSTRUCTION
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF
SET 18 AUG 1940
When cornice is less than 10" an enclosure is required to conceal mechanism. Stock or special cornice may be used
Var.
Variable - Enclosure walls glazed or panelled
Track
Slot in ceiling
ALT
Panic-proof mechanism
1/2" Felt at head
Flush ceiling lights optional. Usually located in the interior and exterior quarters
Wings supported above by trolley in track, permitting them to be moved to side when folded. Held in position by locking device. Speed control optional. May be installed with trolley
Enclosure post. See detail
Variable width door rails and stiles, depending upon the manufacturer and type of material used
Wings & enclosure walls may be of wood, hollow metal, or sheet plastic or metal, on wood core. Any architectural metal may be used
Weatherstrip - See details below
Lock - Two required on opposite wings
From 6'-8" to 8'-0" - 7'-0" Recommended
1" Rubber floor strip
Hanger
Floor socket
Kickplate
1/2 ELEVATION
1/2 SECTION
1 1/4" Wing
1 7/8"
One or two felt strips sewed to rubber
Wood Doors
1 7/8"
Move to second groove when worn
Sheet Plastic or Metal, on Wood
2 1/8"
Rubber Felt strip
Removable clamp
Hollow Metal Doors
TYPES OF WEATHERSTRIP CLAMPS
1 3/4", 2" clearance
Hollow Metal
Sheet Plastic or Metal, On Wood
Standard Wood Posts With Standard Trim
VARIOUS TYPES OF ENCLOSURE POSTS



Is there an "anti-hatching" member of the firm? Granted that hatching can be one of the most wasteful and simple methods of soldiering on the job, legitimate hatching is necessary. We remember one gentleman who turned into a Frankenstein monster if he saw more than one square millimeter of hatching on a three-quarter scale section. In one instance divine retribution overtook him! He got into one beautiful jam with a client because of an expensive construction error resulting from insufficient indication of materials on the sections.

Is there an orderly and complete collection of documents available for reference? Nothing can make a draftsman seem more inefficient than a mixed-up filing system for drawings, catalogs and library books. The necessity for spending hours to search down a simple fact which should be immediately available to the drafting room staff is probably one of the most prolific causes of waste.

Courtesy of Hartford Courant

REPLANNING HARTFORD'S HISTORIC SQUARE

BY HERBERT GIBSON, A. I. A.

EDITOR'S NOTE—As Supervisor of the Hartford, Connecticut, City Plan Commission, Herbert Gibson, A.I.A., has devoted his efforts since 1934 to strengthening the authority and influence of the Commission in city affairs, and to preparing a comprehensive, long-term plan which can be effectively developed for Hartford. He has also served as Technical Director of the Hartford Slum Clearance Survey, and as Consultant to the Mayor's Housing Committee.

The Old State House in Hartford, designed in 1792 by Charles Bulfinch, is a commanding symbol of a growing Commonwealth and occupies a site which has been of historical significance since early Colonial days. It stands on a plot of ground included in the original purchase made by the English—a silent witness to the many changes in its surroundings and public customs.

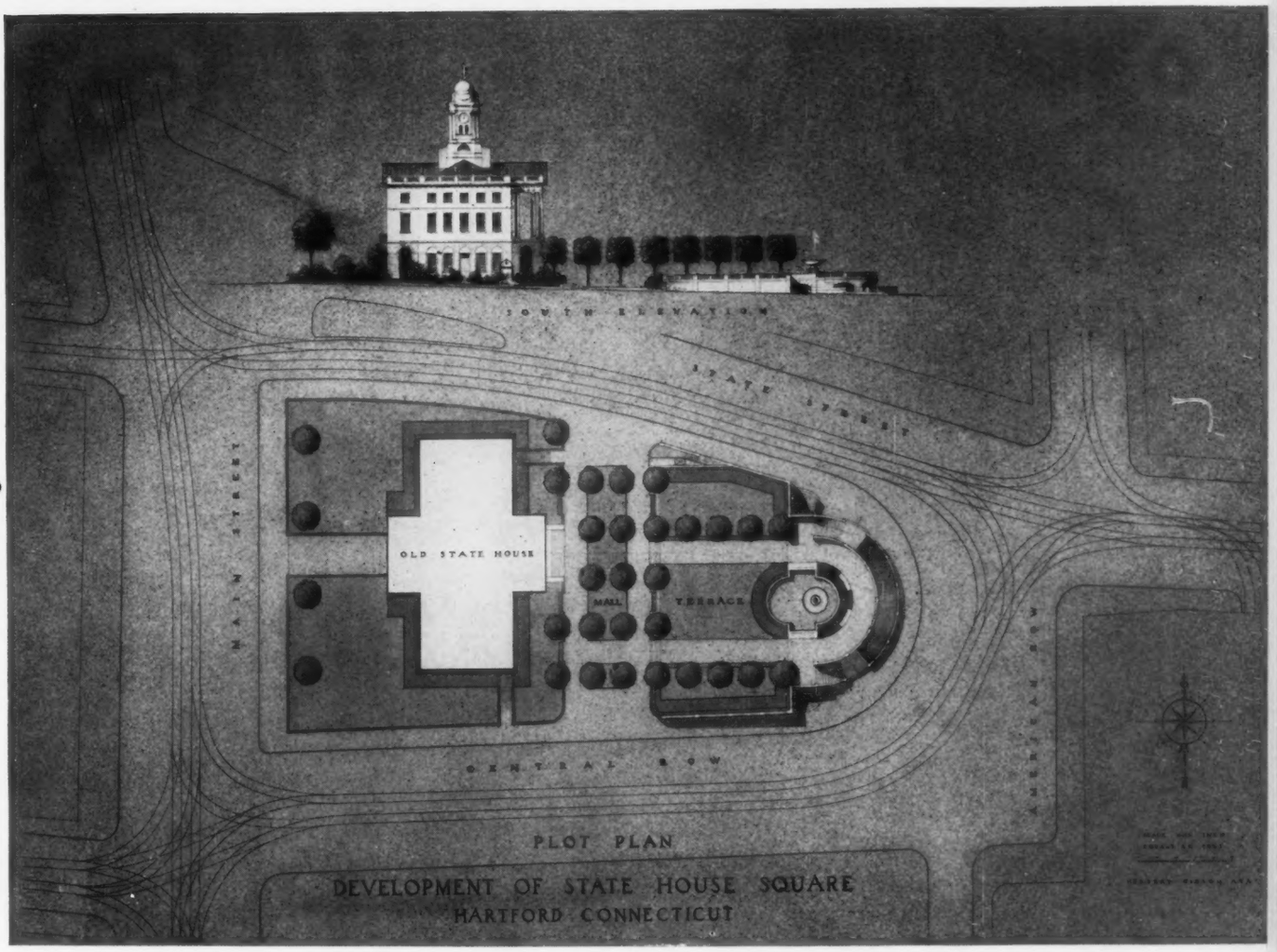
Thanks to the efforts of several patriotic organizations and an enlightened citizenry,

GENERAL VIEW OF THE HARTFORD BUSINESS SECTION LOOKING FROM THE RIVERFRONT UP STATE STREET TOWARD THE OLD STATE HOUSE DESIGNED BY BULFINCH. THE ROW OF BUILDINGS AT RIGHT OF DOTTED LINE WOULD BE REMOVED. VIEW BELOW IS FROM THE STATE HOUSE PORTICO

enough money has been set aside to preserve for all time this structure which is one of the oldest and finest public buildings in the United States. And now, with the removal of the old post office building from the Old State House Square and the reversion of the entire property to the City of Hartford, beautification of the site could and should be resumed. The problem of replanning this important business area must find a solution combining beauty with utility. It should offer an architectural, sculptural, and landscaping treatment in keeping with the dignity of the Bulfinch building—and at the same time provide practical usefulness and a financial return to the people of the city.

Such a plan is presented in the drawings across-page providing for a terraced park on the surface, answering the need for an open area and an appropriate setting for the Old State House, and a bus passengers' waiting room and shops under the east portion of the Square, to meet the needs of the crowded business center and logical traffic loop around the Square. Full advantage would be taken of the present eastward drop of the sidewalk grade. The waiting room suggests itself when we stop to consider that the Square has been the center of the city's traffic and business since 1640.

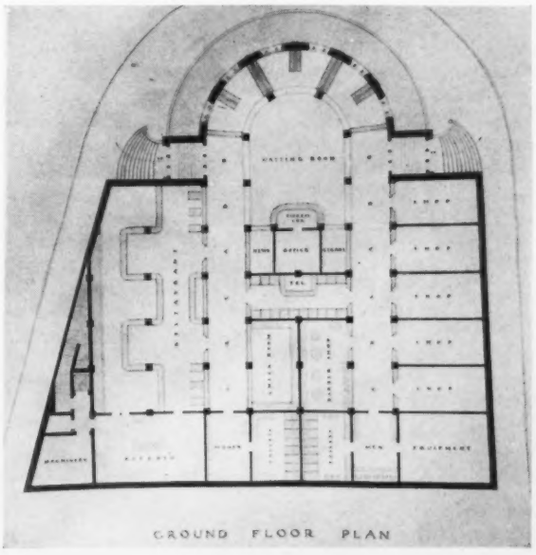
Shortly after the old post office was demolished on this side of the Square in 1933 a waiting room of this sort could have been conveniently (and profitably) provided at relatively small expenditure, since the granite from the old building could have been used for retaining walls, steps, etc., and the excavation had not then been filled in, planted in grass, and surrounded by an iron picket fence to exclude public use! In the design of a plot plan, the possibility of a strictly orthodox restoration of the Old State House Square was later studied, but abandoned for the plan presented here, when the usefulness and even logic of a faithful restoration of the old axial paths and fountain were questioned. This is a problem frequently met in older towns and cities. No argument, other than sentiment, could be advanced for a faithful restoration so a more practical plan was recommended.

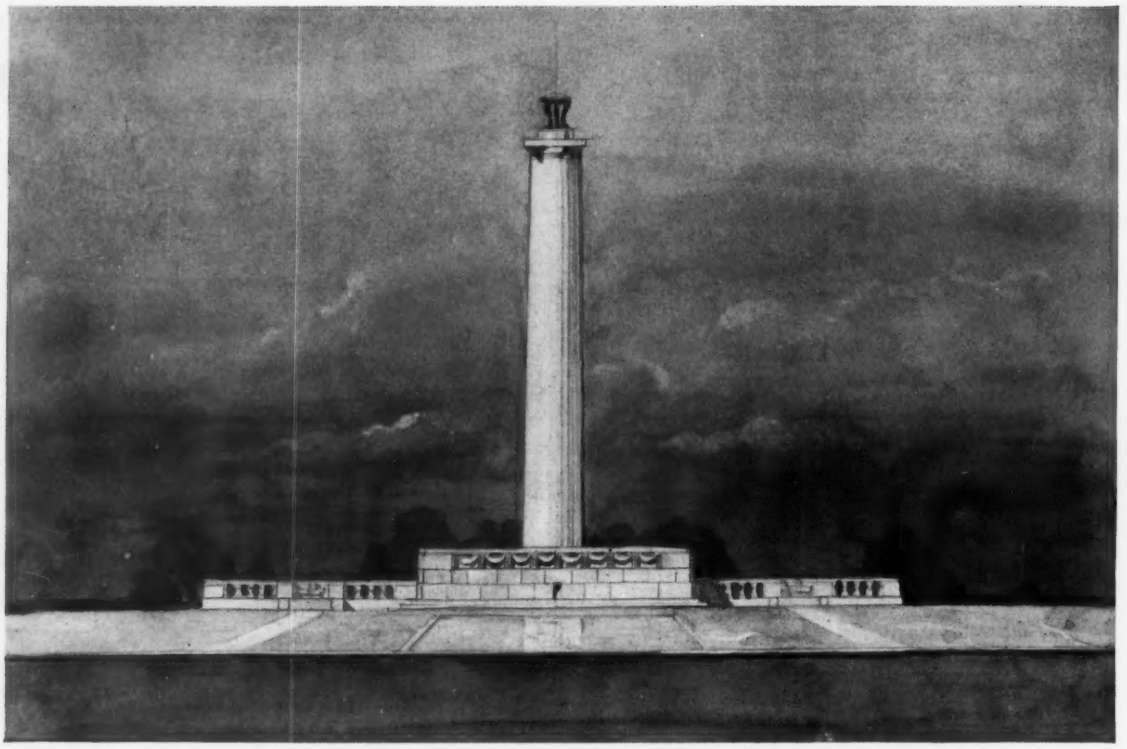


THESE DRAWINGS BY HERBERT GIBSON SHOW THE PROPOSED PLAN FOR THE STATE HOUSE SQUARE, WITH FOUNTAIN AND TERRACED PARK ON THE EAST HALF OVER A WAITING ROOM, SHOPS, LUNCHROOM, INFORMATION BOOTH, AND OTHER FACILITIES TO SERVE THE BUSY TRAFFIC CENTER

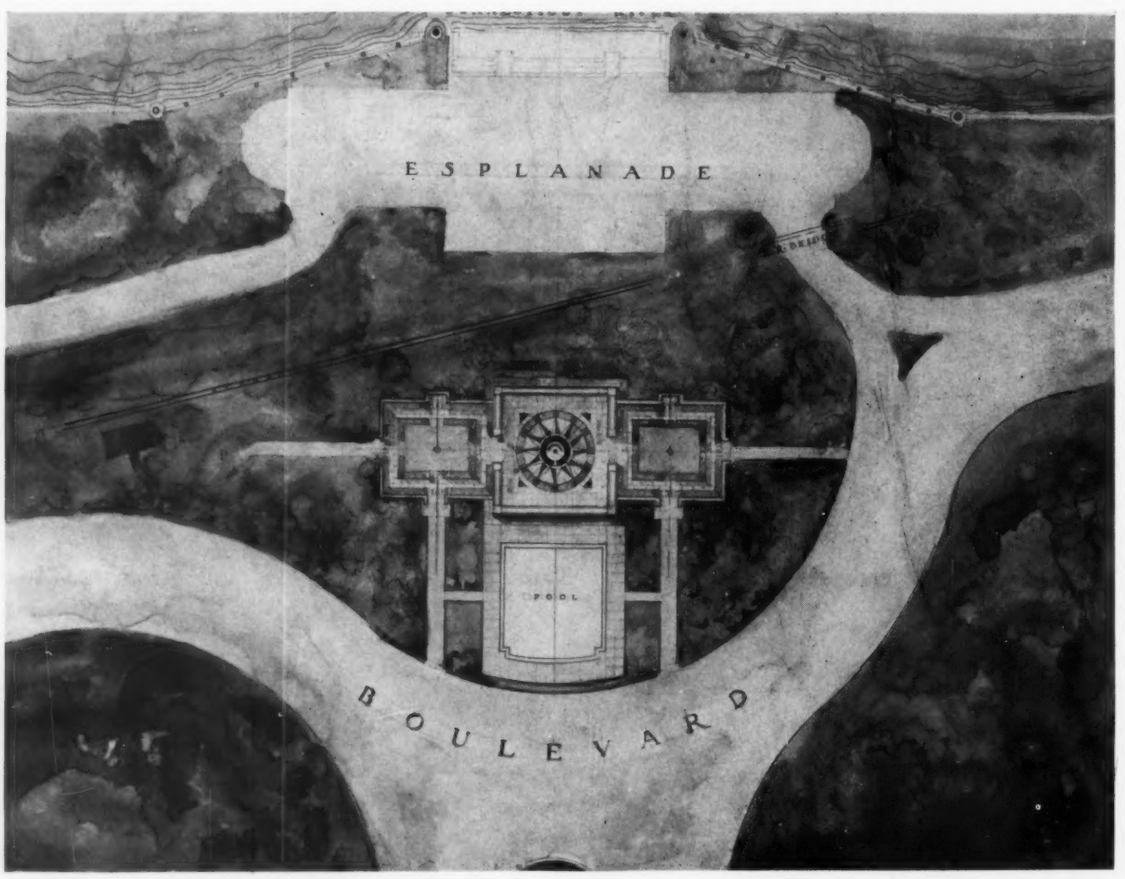
A sculptural fountain *is* included in the proposed park, however, and could be designated as the Burr Memorial, since the State Sculpture Commission holds in trust some $300,000 to be used for a sculptural fountain in memory of Alfred E. Burr. The Bulfinch monument would be a matchless background for this memorial!

While the replanning of the Square is in itself an important project, it is but one of several features of a general beautification plan for the improvement of Hartford's East Side and Riverfront, which was proposed by the writer in 1935 and officially adopted then by the City Plan Commission. The restored park would be the western terminus of a widened State Street, really two 75-foot streets with a broad central planting strip, forming a vista to the proposed Founder's (Hooker) Memorial at the riverfront terminus of State Street. Drawings of this Memorial are shown overpage.





THESE DRAWINGS OF THE PROPOSED FOUNDER'S (THOMAS HOOKER) MEMORIAL, BY SMITH & BASSETTE, ARCHITECTS, OF HARTFORD, INDICATE THE PROPOSED DEVELOPMENT OF THE EAST TERMINUS OF STATE STREET, AFTER IT IS WIDENED TO A BOULEVARD PROVIDING A VISTA FROM THE OLD STATE HOUSE TO THE RIVERFRONT DEVELOPMENT OF DOWNTOWN HARTFORD. THE ESPLANADE BELOW THE COMMEMORATIVE COLUMN WOULD BE USED FOR LANDING FROM PLEASURE CRAFT ON THE CONNECTICUT RIVER



THE MONOGRAPH SERIES

Records of Early American Architecture

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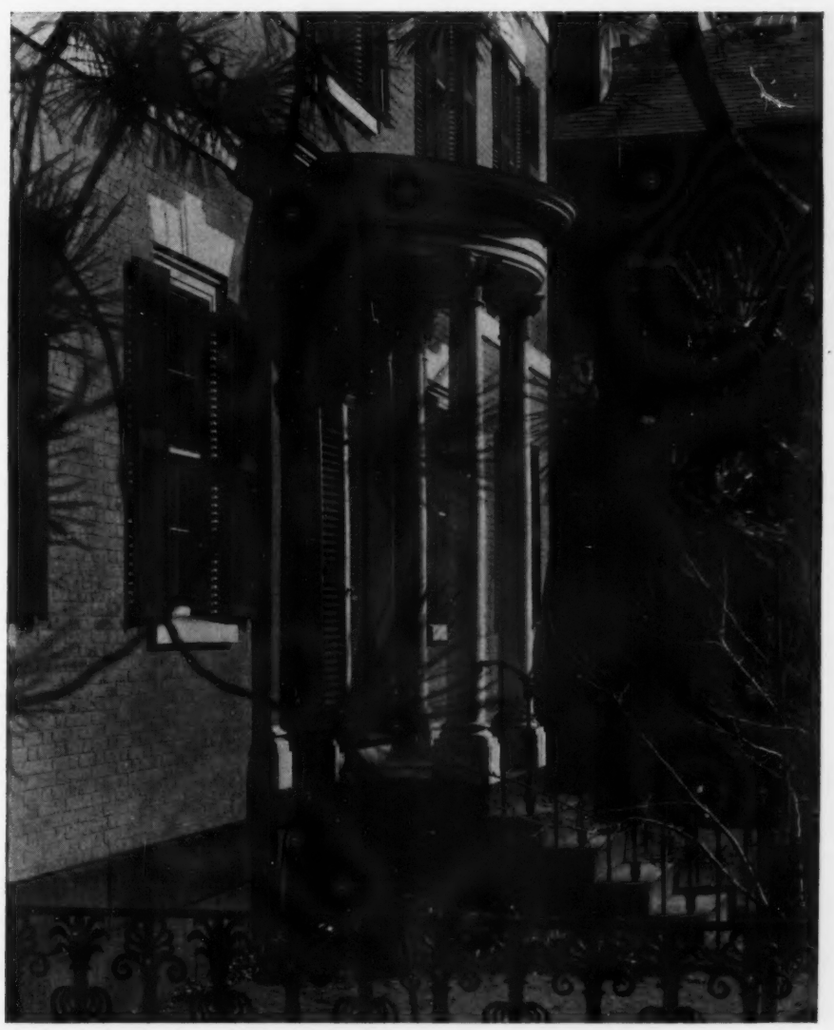
Volume XXVI • Number 4



DETAIL OF ENTRANCE PORCH
THE GARDNER-WHITE-PINGREE HOUSE
Samuel McIntire, Architect
SALEM, MASSACHUSETTS

ENTRANCE HALL AND STAIRWAY
GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS
Samuel McIntire, Architect

[146]

THE GARDNER-WHITE-PINGREE HOUSE

BUILT *in* SALEM, MASSACHUSETTS, *in* 1804

by SAMUEL McINTIRE, ARCHITECT

Photographs by Arthur C. Haskell

AMONG the artisans of New England the name and fame of Samuel McIntire has spread far beyond the local boundaries of his native town of Salem, Massachusetts. Although probably best known as a carver of wood, he is also to be credited with the actual design of many of the mansions in and about Salem, with which his name is still associated—and while his abilities as a designer were not—in his early years—commensurate with his skill as a woodworker, among his later structures may be found examples of a refinement and perfection in treatment that are not to be bettered by any among his contemporaries.

His father, Joseph McIntire, was also a "Housewright," or carpenter—as we would term him today. Samuel was born January 16, 1757, and had two brothers, both of whom were also trained in his father's shop, and later assisted Samuel to complete many of the houses of local McIntire fame—thus considerably extending the period of years and number of houses with which the name could be associated!

His elder brother, Joseph, later became his principal assistant. He was born nine years before Samuel, and still another assistant—his younger brother by two years—was Angier. Samuel McIntire had also a son, Samuel F. McIntire, who assisted his father; as was also true of the sons of his elder brother, Joseph. So, actually, we have the name of McIntire associated with the buildings of Salem for a period of three generations, or probably about seventy-five years, including the working years of his father! Samuel himself died in 1811, but left behind him many drawings and designs, as well as the large school of relatives and assistants who had been helping him.

Early in life he bought a house at 31 Summer Street, Salem, in which he lived, and built his shop in the rear of the dwelling. This house was built in 1780, and as Samuel McIntire's best known early house is the Pierce-Johannot Nichols Mansion, which was started in 1782, he must from the first have been very successful in business. Despite the delicacy of his carvings and their design, his early buildings were over-bold and of heavy relief—of which this house provides an excellent example. Later, his style of design became more refined, but remained somewhat ornate and still "heavy" in character—as in the Cook-Oliver dwelling, perhaps—and it was not until his later years, that he acquired the experience and feeling that made possible the simplicity and distinction that is to be found in the David Pingree House, the example chosen for detailed illustration here.

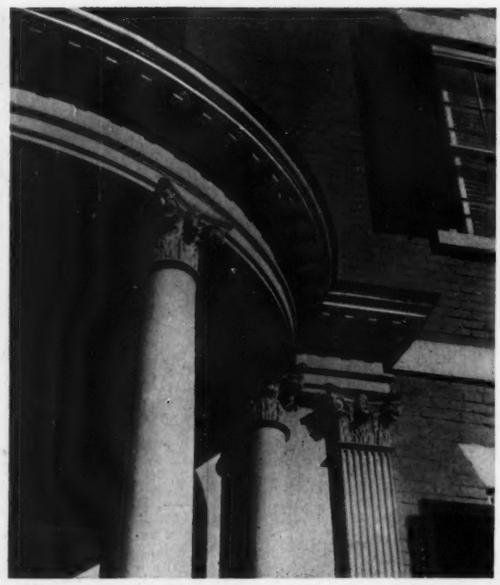
This dwelling—lately known as the Gardner-White-Pingree House, and numbered 128 Essex Street—fortunately has been preserved through its acquisition by the Essex Institute, and is representative of McIntire's third and best period. The sheer simplicity of this house façade is characteristic—the relation of story above story, with only a slightly-projecting band of marble to mark the floor lines between; the windows set almost flush with the wall face, and no other ornament except the flush marble lintels and the charmingly naïve porch, up to the cornice and eaves balustrade above! But lack of pretentious detail is compensated by its perfect scale and the proportion of all its parts. Those who desire more elaboration may turn to the interior, where equal restraint, along with great delicacy of carving, ornaments the mantels, staircase, door frames, and cornices throughout.

The interiors have been very carefully furnished from the collections of the Essex Institute, and individuals interested, including Mr. William Endicott, and others. As a result, some rooms are simple and dignified, while others are definitely more gay and provocative, especially in their color schemes and draperies.

The Dining Room conforms to the first classifica-

The definitive volume on Samuel McIntire and his works is due off the press this month, with text by Fiske Kimball. It has been twenty years in preparation, and is sponsored by the Essex Institute.

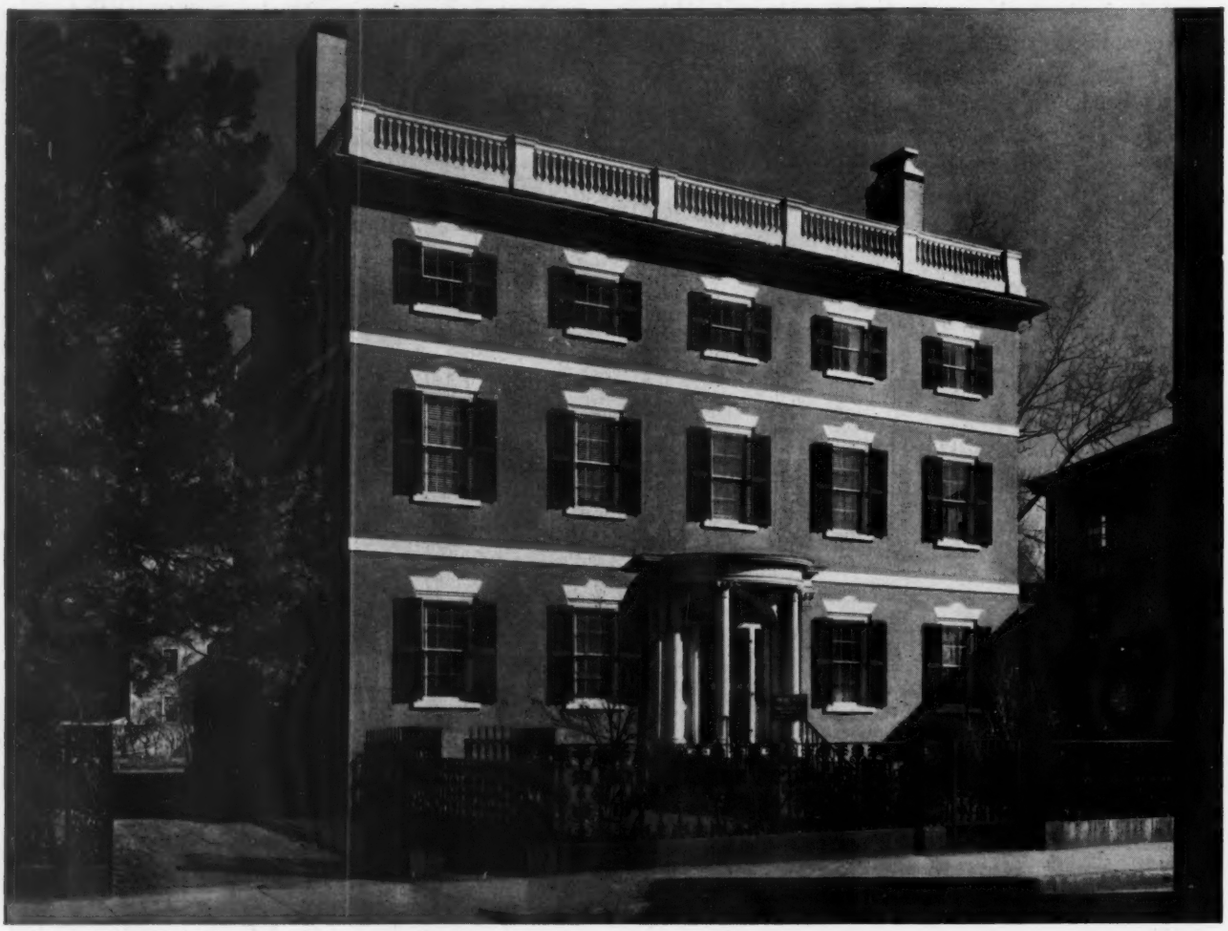
tion, with simple blue-toned wall, and Venetian blinds. The two rooms on the eastern side are more frivolous. The front room windows have simple draped underpieces of plain gauze or muslin, with parti-colored fringe, re-echoing the sprigs of embroidered, flowering sprays on the draped muslin overpiece. The rear room has a similar window material, all in white, with white embroidered sprays. In both rooms the walls are covered with a strong yellow paper, plain in the front room, and with panels of classical subjects breaking up the width in the rear Parlor. In both, a classical frieze goes above the dado, and a narrow band below the cornice, with a vine edging the wall openings—all printed in shades of blue.



DETAIL—UPPER PART ENTRANCE PORCH

The second floor front room draperies are peachblow silk, with a peach and blue-striped similar material festooned above the hangings. A similar arrangement of this material forms the posted bed canopy. The bedroom at the rear has blue watered silk at the windows and pale tinted walls. The larger west room has a light blue tinted plaster wall, with an East Indian damask with rosebuds, blue cords and tassels at the windows, and the bed is covered with blue brocade.

FRANK CHOUTEAU BROWN

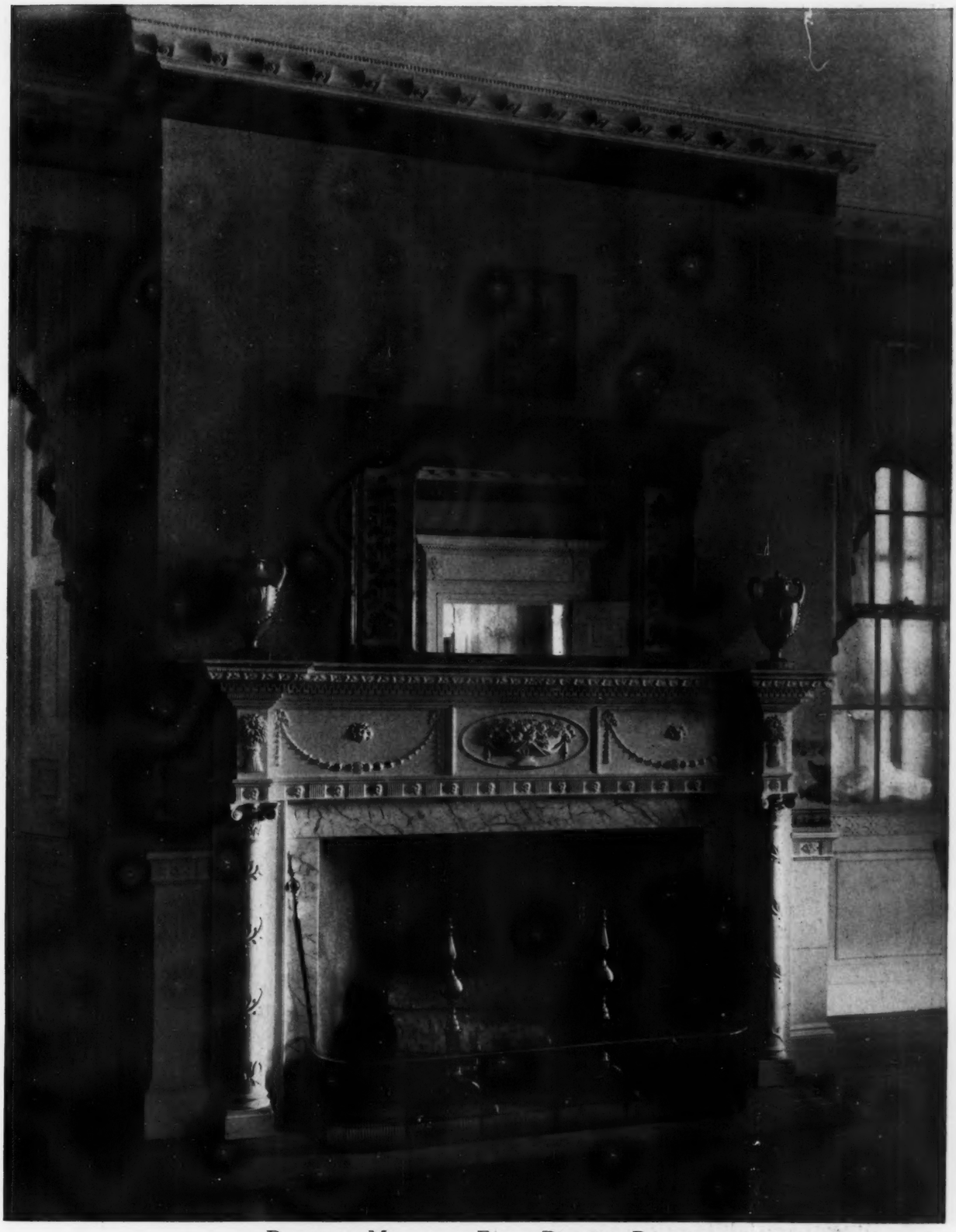


FRONT FAÇADE AND ENTRANCE PORCH

GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS

Samuel McIntire, Architect

[148]



DETAIL OF MANTEL IN FRONT DRAWING ROOM
GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS
Samuel McIntire, Architect

[149]

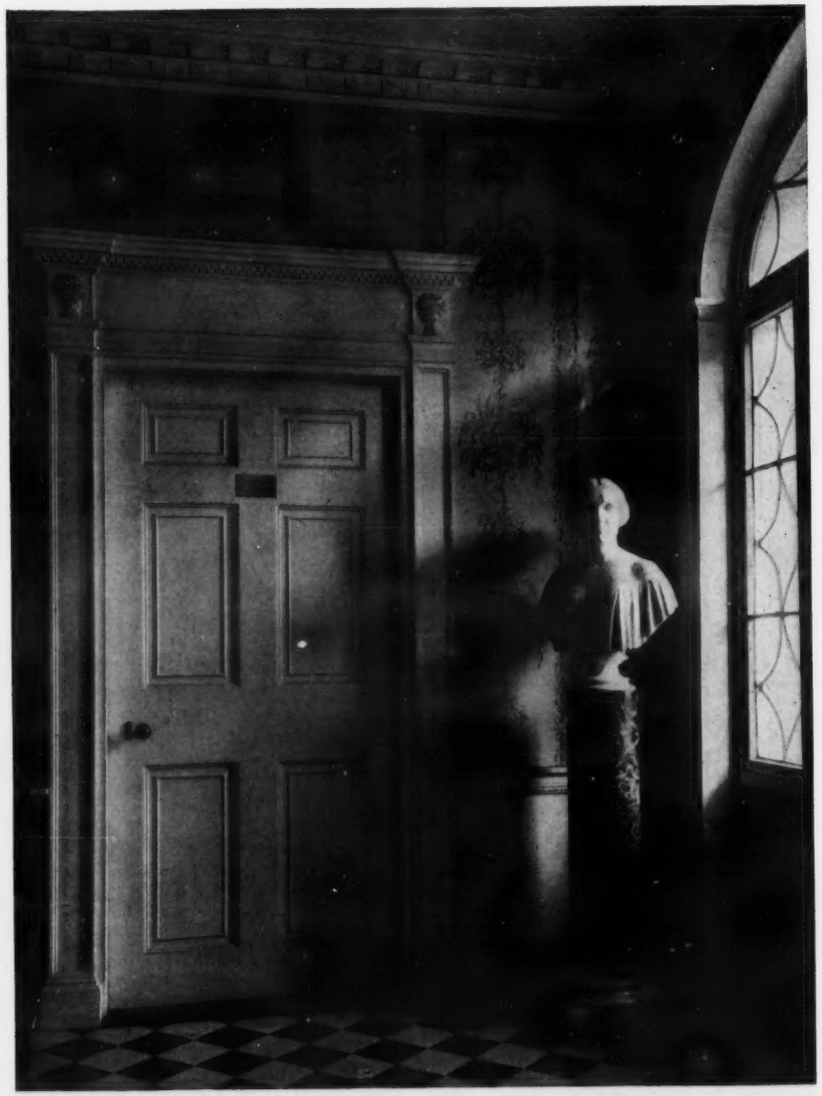
DETAIL OF NEWEL AND START OF STAIRS

DETAIL SHOWING TURN OF STAIR RAIL TO SECOND FLOOR

GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS

Samuel McIntire, Architect

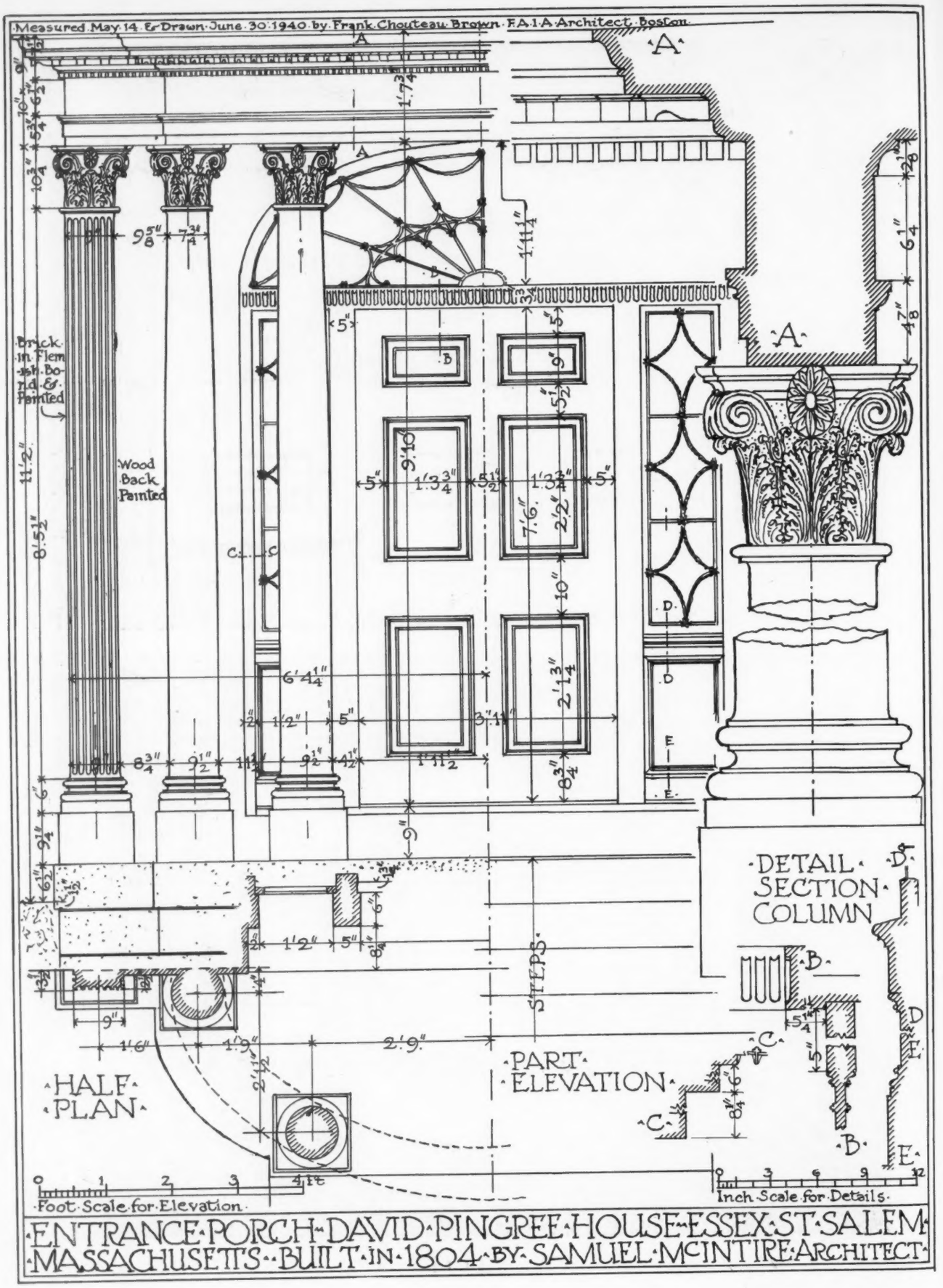
VIEW INTO NORTH PARLOR FROM FRONT DRAWING ROOM



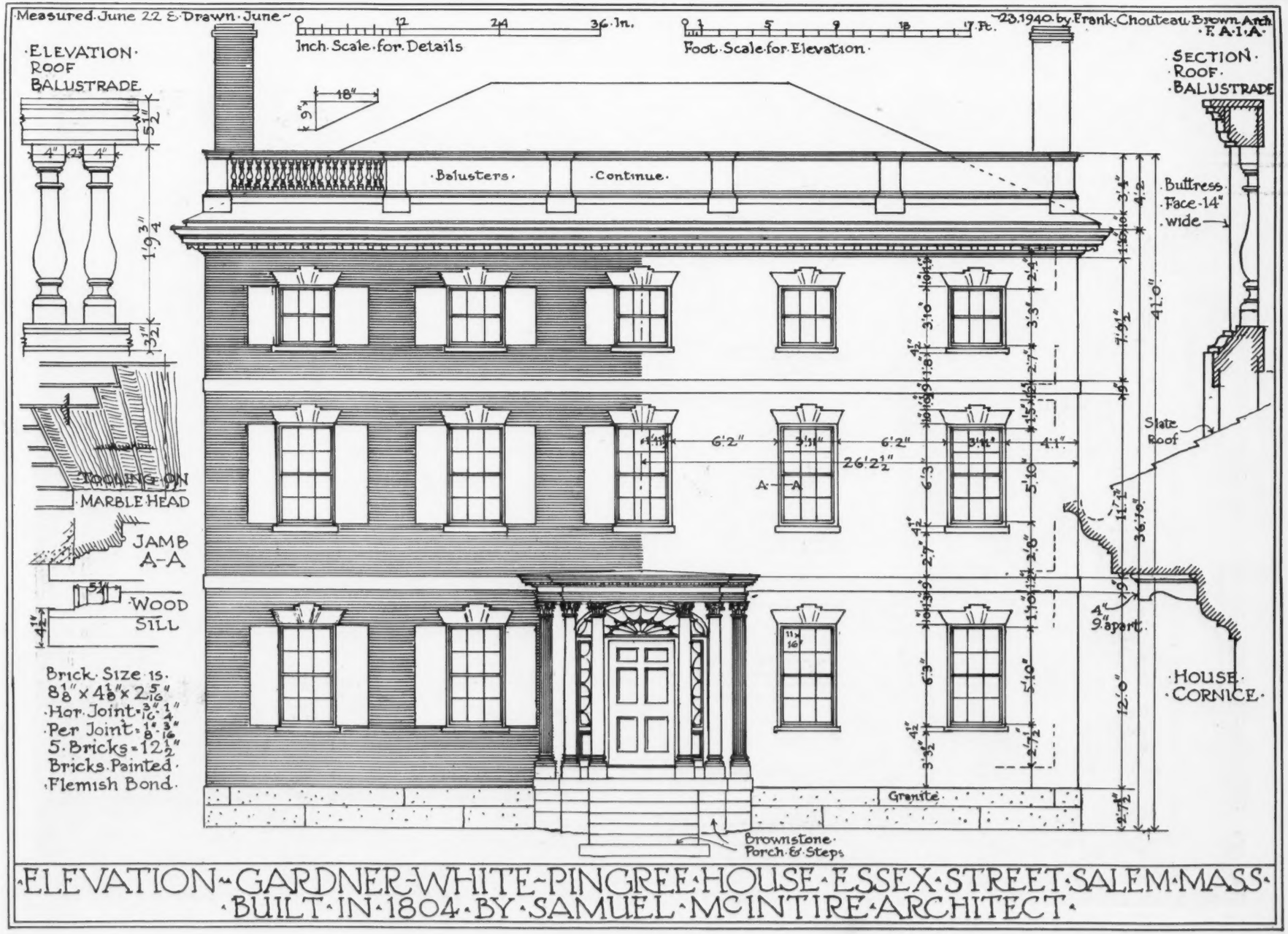
CORNER OF HALL INSIDE ENTRANCE DOORWAY

GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS

Samuel McIntire, Architect


Measured May 14 & Drawn June 30 1940 by Frank Chouteau Brown F.A.I.A. Architect Boston
Brick in Flemish Bond & Painted
Wood Back Painted
DETAIL SECTION COLUMN
HALF PLAN
PART ELEVATION
STEPS
Foot Scale for Elevation
Inch Scale for Details

ENTRANCE PORCH · DAVID PINGREE HOUSE · ESSEX ST · SALEM MASSACHUSETTS · BUILT IN 1804 · BY SAMUEL McINTIRE ARCHITECT



ELEVATION — GARDNER-WHITE-PINGREE HOUSE · ESSEX STREET · SALEM · MASS.
BUILT IN 1804 · BY SAMUEL McINTIRE ARCHITECT

GENERAL VIEW OF DINING ROOM, FIRST FLOOR
GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS
Samuel McIntire, Architect

FRONT DRAWING ROOM AND DOORWAY TO NORTH PARLOR, FIRST FLOOR
GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS
Samuel McIntire, Architect

DETAIL VIEW OF EAST FIREPLACE WALL, NORTH PARLOR, FIRST FLOOR
GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS
Samuel McIntire, Architect

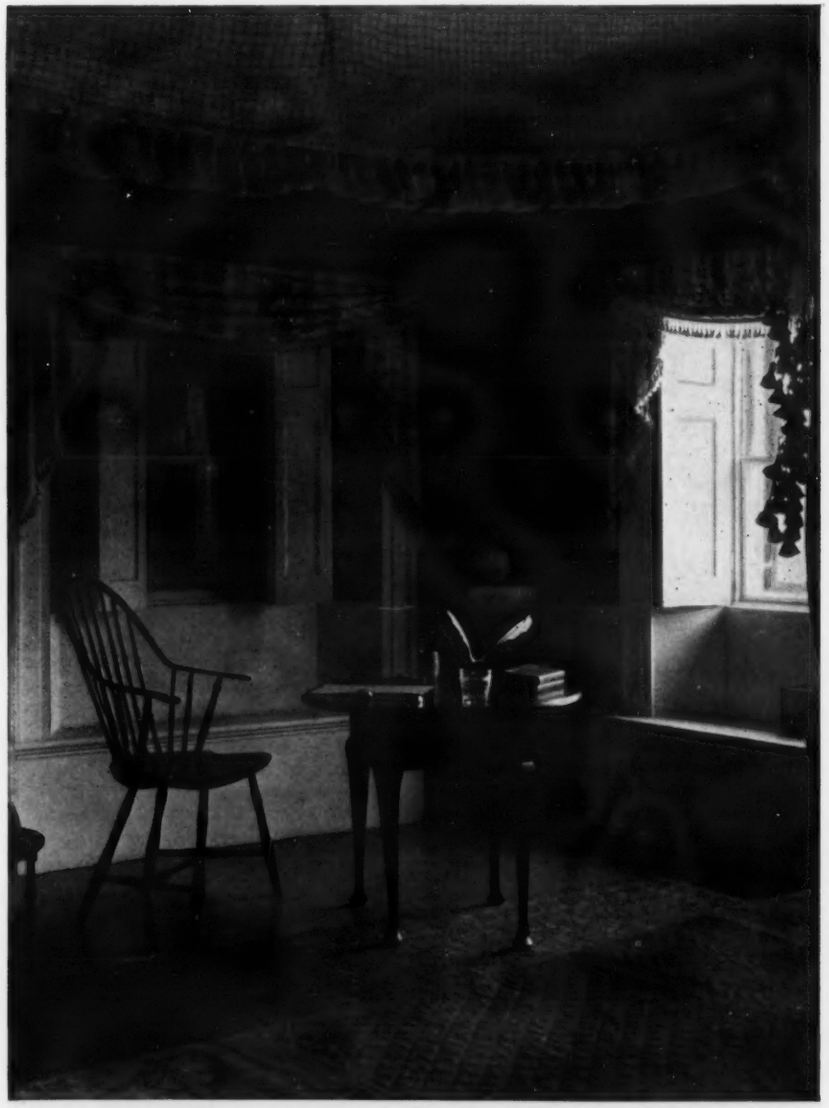
SOUTHWEST BEDROOM, SECOND FLOOR
GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS
Samuel McIntire, Architect

CORNER IN FRONT DRAWING ROOM, FIRST FLOOR

CORNER IN NORTH PARLOR, FIRST FLOOR

GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS

Samuel McIntire, Architect



CORNER IN SOUTHEAST BEDROOM, THIRD FLOOR

FIREPLACE IN NORTHEAST BEDROOM, SECOND FLOOR

GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS

Samuel McIntire, Architect

East Fireplace Wall of Northeast Bedroom, Second Floor

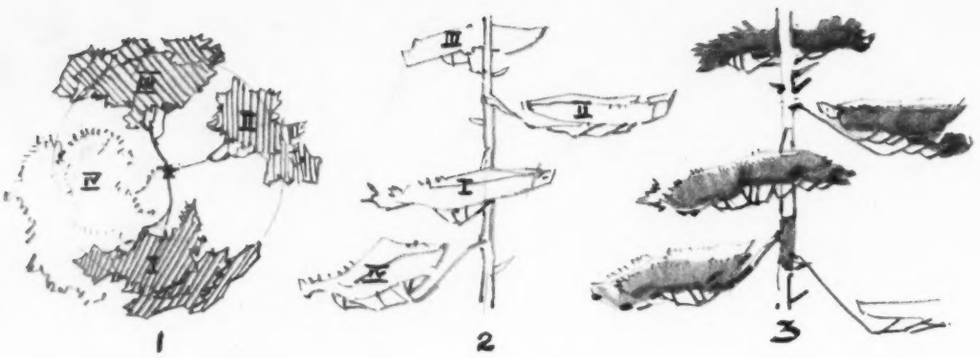
East Wall of Southeast Bedroom, Third Floor

GARDNER-WHITE-PINGREE HOUSE—1804—SALEM, MASSACHUSETTS

Samuel McIntire, Architect

[160]

STREET SCENE AT LANNION, BRITTANY



LESSON 5—STRUCTURE AND FOLIAGE OF PINE TREES

PENCIL BROADSIDES—5

BY THEODORE KAUTZKY

For the next few lessons I am going to discuss the drawing of different types of trees. Many people who can make a satisfactory representation of an architectural subject seem satisfied if they can suggest its setting by means of nonedescript or stereotyped trees and shrubbery. I feel very strongly that it is worth while to learn to draw trees that really look like trees and that can be identified as oak or birch or pine or some other definite species.

The first essential is an understanding of the tree structure. You should, by observation of actual specimens, fix in your mind the characteristics of each kind of tree, the relation between its various parts, between trunk and branch, twig and leaf, and so on. Realize that it is a three-dimensional object which can be thought of in terms of plan as well as elevation. Light falling upon it will strike full against some of the foliage masses while others will be in shade or in shadow. Some of the branches extend towards the observer, some away, and some to either side of the trunk. These things seem elementary, but I have seen so many drawings which show a disregard for the simplest facts of tree structure that it is worth while to point them out. By keeping them in mind you will avoid drawing the hard formless silhouettes or feather-dustery monstrosities that so unnecessarily mar the work of many amateur sketchers.

At 1, 2, and 3 on the accompanying plate, I have diagrammatically shown a section of weather-beaten pine tree with four branches. In plan, the branches, each bearing an irregular mass of needles, radiate in four directions from the trunk, filling out a rough circle. In elevation, the four branches appear at different levels, extending out and down from the trunk and terminating in up-curving, finger-like twigs supporting the foliage. With light falling from the left and above and striking the tops of these foliage masses, the sides you are looking at would be about as shown, generally dark in value with a suggestion of sunlight along the top surfaces. Where the foliage is in back of the trunk, the trunk will appear light against the dark needles beyond. Where the branch comes out towards the light, its foliage casts a shadow on the trunk below. So much for this analysis, the application of which will become clear as you proceed with a finished sketch.

The lower portion of the plate is devoted to a representation of a few old pine trees raising their heads above the silhouette of a grove of younger pines beyond. You can copy this plate or you can compose groups of trees following your own fancy to make a composition. Whichever you do, the trees and foliage masses should be first sketched in lightly and you should have clearly in mind the disposition of darks and lights to create an interesting pattern in which there shall be rhythm and balance.

In young pines the branches start from the trunk at an upward angle. As the tree grows older and the foliage masses become heavier and extend farther out from the trunk, the branches are weighted down into a graceful, elongated S-curve. At first there are pos-

sibly six or more radiating branches at each level. In the tree's life, however, branches break off or are cut off until when it becomes old it is likely to be irregular and picturesque like the ones shown here. One can take liberties in arranging the foliage of this sort of trees to conform with the requirements of a picture, without much danger of departing from reality, provided the general rules of tree structure are not violated.

In rendering the foliage of these trees, I have used short broad strokes for the most part, with narrower radiating strokes, made with the narrower side of the broad-pointed pencil, around the edges of each mass. This treatment makes a clean, sharp silhouette against the sky, which is left white, and suggests, without being too literal, the needles which make up the foliage.

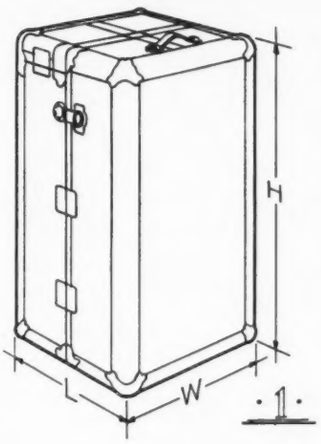
While the general tone of evergreen foliage is dark, you will note that I have made the portions receiving the light from the sky distinctly lighter than those portions in shade, away from the light, or in shadow. You will also observe, in some places, allowance for light reflected up from the ground into the shaded areas.

The branches and twigs either silhouette dark against the sky or light against dark foliage behind them. Since the bark is comparatively smooth, it may be rendered with broad strokes laid with a little texture. Where, for purposes of composition, a light area of foliage needs to be suggested, as in the branches vignetting at the upper right of our little picture, it is convincing enough to put in the radiating zig-zag strokes around the edges. The eye is satisfied because the more completely rendered masses of the other trees have told the story.

In the next lesson, another type of tree, the oak, will be the subject of discussion. In the meanwhile, practice making pine trees until you can do them freely and convincingly.

*TYPHONITE ELDORADO PENCIL PAGE

·SIZES OF LUGGAGE·



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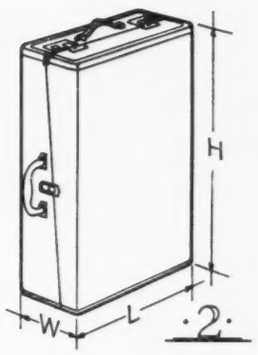

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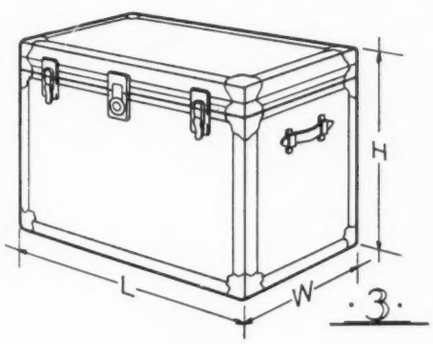

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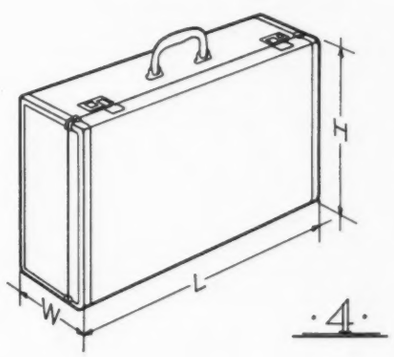

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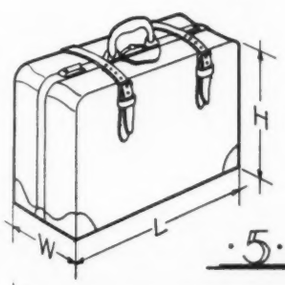

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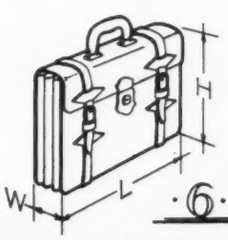

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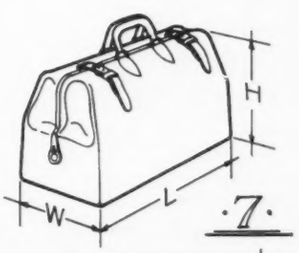

·7·

NUMBER	TYPE OF LUGGAGE	L	W	H
1	WARDROBE TRUNK	1'-11"	1'-10 1/4"	3'-6"
2	JACKNIFE WARDROBE CASE	1'-8"	9"	2'-5"
	TAXI WARDROBE TRUNK	1'-8"	9"	2'-11"
3	DRESS TRUNK	3'-4"	1'-10"	2'-1"
	ARMY STYLE LOCKER	3'-0"	1'-8"	1'-0 1/2"
4	SUITCASE	2'-4"	9"	1'-3 1/2"
	PULLMAN CASE	2'-2"	9"	1'-4"
	OVERNIGHT CASE	1'-9"	7"	1'-2"
	MENS TRAY SUITER	2'-0"	8 3/4"	1'-6"
	WOMENS WARDROBE CASE	1'-9"	8 1/2"	1'-6"
	SHOE AND HAT CASE	1'-6"	8 1/2"	1'-5"
5	GLADSTONE	2'-2"	8"	1'-1 1/2"
6	BRIEF CASE	1'-4"	6"	1'-0"
7	CLUB BAG	1'-8"	10 1/2"	1'-2 1/2"

·TABLE OF DIMENSIONS·

NOTE: Dimensions given are maximum.

This Dixon *Typhonite* Eldorado drawing, showing typical sizes of luggage, is offered as a useful guide in planning the storage space of apartments and in designing check-rooms in hotels, bus stations, railroad terminals and trunk storage space in hotels.

The draftsman used a Dixon *Typhonite* Eldorado 2H on vellum paper. Both light and fine lines as well as very heavy black lines and lettering were all accomplished with this single degree.

This versatility is another striking example of Dixon *Typhonite* Eldorado quality —a quality derived from **Typhonite*, the new form of graphite created by a typhoon of super-heated steam. Thanks to this exclusive *Typhonite* process, *Typhonite* particles are not only infinitely small, but are of a *controlled size.*

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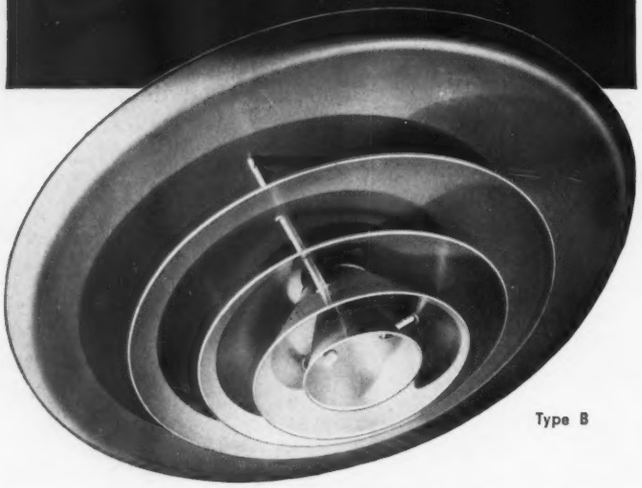

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THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Only those items will be listed for sale which we can no longer supply from our own stock. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.

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Notices submitted for publication in these Service Departments must reach us before the twelfth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York.

THE MART

W. Norman Floyd, 5835 Elliott, Dallas, Texas, has volumes 1 and 2 of *The Mechanical Equipment of Buildings*, Harding & Willard, latest edition, brand new, list price $10 per volume. Would like to trade for other books or equipment. Please send offer.

The group "Telesis," 210 Post St., San Francisco, Calif., has for sale the three volumes of *Christian Art*, edited by Ralph Adams Cram, printed in Boston by Gorham Press, 1909. All are in excellent condition, bound in cloth. Proceeds of the sale will be used for the current Telesis exhibition or later exhibitions.

Harry C. Reely, N. Redland Rd., Homestead, Florida, has the following copies of PENCIL POINTS for sale: 1921, 1922, 1923, 1924, 1925, 1926, 1928, complete except some advertising removed, a few with covers removed; 1929 ads and covers removed from all. All in good condition for binding.

William J. Schlesinger, 6619 San Bonita, Clayton, Mo., has the following for sale: January 20, 1911, Frank Lloyd Wright issue of *Sonderheft der Architektur*; volume Smithsonian Institution on Anthropology; *Geological Surveys of Ohio*, 4th Series—Bulletin 9, Coal; Bulletin 16, Building Stone; Bulletin 1, Oil and Gas. Any reasonable offer.

George F. Bosworth, 171 Newbury Street, Boston, Mass., has the following books for sale: *Book of the B.A.C.*, 1928, examples of English architecture and ornament, 100 plates; *Book of the B.A.C.*, 1925, drawings and details of Spanish architecture, 196 plates; *Year Book of the B.A.C.*, 1913, the Petit Trianon, 59 plates.

Wm. W. Dudley, 520 Cedar Street, Elizabeth City, N. C., has the following for sale: PENCIL POINTS—January through April, 1933; May through December, 1936; 1937, 1938; January through September, 1939. *Fundamentals of Architectural Design*, Turner; *Freehand Drawing Self-taught*, Guptill; *Sketching As A Hobby, Guptill*; *Drawing in Lead Pencil*, Rines; *Cyclopedia of Drawing*, 4 vols., A.T.S.; *Steel Construction*, Burt; Audel's *Plumbers and Steam Fitters Guide*; *Mechanical Drawing and Design*, Rogers; folding drafting table,

(Continued on page 42, Advertising Section)

MODERN MATERIALS FOR MORE DISTINCTIVE, MODERN INTERIORS

ARCHITECTS! The impressive board room above is a splendid example of the way in which Nairn Linoleum for floors and walls can help you create more distinctive and individual modern interiors.

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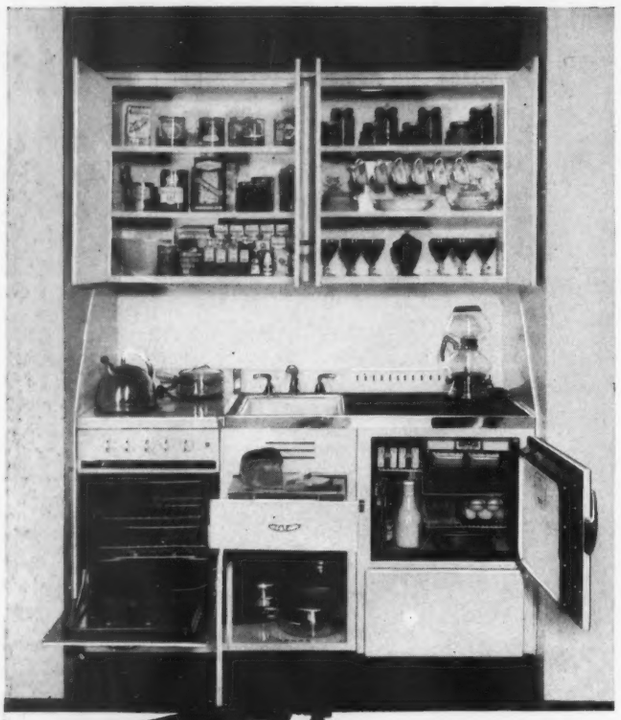
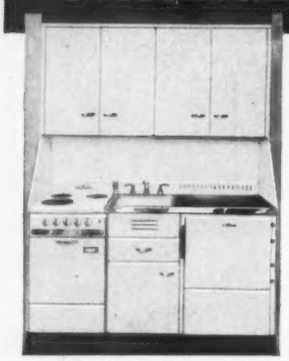


NEW

GENERAL ELECTRIC

"PACKAGE" KITCHENS



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Address.....

(Continued from page 40, Advertising Section)

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Sydney S. Sylvester, 3312 Perry Avenue, Bronx, New York, has the following architectural books for sale, in extra fine condition: *Building Estimator's Data Book*, C. F. Dingman; 12 books *El Arte En Espana* as follows —1. *Catedral de Burgos*, 2. *Guadalajara Alcala de Henares*, 3. *La Casa Del Greco*, 4. *Real Palacio de Madrid*, 5. *Alhambra*, 6. *Velazquez En El Museo del Prado*, 7. *Sevilla*, 8. *Escorial*, 9. *Guadalupe*, 10. *El Greco*, 11. *Aranjuez*, 12. *Poblet*; *Building Construction and Superintendence*, 2 vols., Part 1 mason work, Part 2 carpentry work, Comstock; *Underpinning*, Prentis & White; *Concrete Building Construction*, J. Wiley & Sons.

Aubrey Russell, 2238 Sichel Street, Los Angeles, Calif., has the following books for sale: *Decorated Wooden Ceilings in Spain*, Byne & Stapley, out of print, $16.00; *Old Bridges of France*, Emerson & Gromort, sketches by Rosenberg & Chamberlain, water color plates by Vignal, numbered copy of limited edition, $18.00. Also the following magazines, advertising removed, bound in cloth six months to a volume, excellent condition: 1913 through 1927, *Architectural Record*; 1923 through 1927, *House Beautiful*; January, 1923 through June, 1924, *House and Garden*. Will sell for $1.00 per volume.

John Cushing, 237 S. Gary Street, Tulsa, Oklahoma, would like to purchase copies of *The Tuileries Brochures*, Ludowici-Celadon Company. He would also like to receive listing of books for sale.

PERSONALS

C. C. BRIGGS, *Architect*, has moved his office to 607 Fifth Avenue, New York, N. Y.

CARL H. FALTERMAYER, *Architect*, has opened an office for the practice of architecture at 41 Zane Street, Glassboro, N. J.

FREDERICK C. GENZ, *Architect*, has opened an office for the practice of architecture at Room 5619-A Grand Central Terminal, New York, N. Y. Mr. Genz will be available to the profession as a consultant on Building Laws and Practice. He was formerly with the firm of Reinhard & Hofmeister.

MESSINEO & STEELE, *Architects*, who recently established an office at 167 Main Street, Lewiston, Maine, have dissolved this partnership. H. Yelverton Steele is continuing at that address under his own name.

W. L. JAEKLE, *Architect*, 310 W. Second Street, Dayton, Ohio, would like information concerning activities of architectural groups dealing with low cost homes. He would appreciate a communication from any member of such a group, advising him of the procedure to encourage such building, the success of such an undertaking, and possibly the pitfalls to be avoided.

ROBERT AND COMPANY, *Architects and Engineers*, Atlanta, Ga., have opened an office at 20 West Duval Street, Jacksonville, Florida, and another in Corpus Christi, Texas, for the purpose of handling the United States Naval Air Base work.

W. E. STAINBACK, *Superintendent of Buildings and Grounds*, has moved his office from National Bank Building, Charlottesville, Va., to St. John's College, Annapolis, Md.

ALFONS BACH, *Designer*, has moved his studio and office to his new building on Haviland Road, Stamford, Connecticut, and will maintain a New York office at 101 Park Avenue.

AT LARGE IN THE LIBRARY

ARCHITECTURE THROUGH THE AGES, *by Talbot Hamlin ($6.00, 680 pages 6½" x 9½"—G. P. Putnam's Sons, New York).*

To get an answer to why Talbot F. Hamlin writes a history of architecture in the face of Bannister Fletcher's monumental accomplishment you should read the English translations of two German works from which he has drawn some inspiration, *viz.* Egon Friedell's *A Cultural History of the Modern Age, the Crisis of the European Soul from the Black Death to the World War,* and Oswald Spengler's *Decline of the West.* The Spengler is deep stuff—too deep for me—but the Friedell is not too difficult and tells the same sort of story as Spengler.

The attitude which is latent in Bannister Fletcher's *History of Architecture on the Comparative Method* can be discerned in its frontispiece. This shows a "tree of architecture" having symmetrically arranged branches, each branch bearing leaves on which "styles" are pictured. On the lowest branches are Peruvian, Egyptian, Assyrian, Chinese, and Japanese leaves. The topmost leaf bears a picture of the Flatiron Building and is labeled "American." Seated decorously under the boughs and having some relationship to the tree roots are several classically-attired dames labeled Geography, Geology, Climate, Religion, Social, and History. The book was first printed in 1896. It is, as the picture might indicate, a product of English upper-class scholarship -- orderly, rational, categorical, restrained, and slightly wacky in a gentlemanly way. It tends to explain architecture as a logical, almost automatic resultant of material forces acting in combination. It shows the art of building in its "evolution" from the crudities of an Egyptian pylon to the peak of refinement of that wedge-plan structure at the intersection of Twenty-third Street and Fifth Avenue in New York City.

For many a year now, German upper-class historians have been jeering at this systematic and evolutionary style of history. *They* have been rewriting the record as if it were to be the libretto for some Wagnerian opera. For them nothing evolves, all is chaos except where some Hero, some führer, creates temporary order. Whole cultures come on the stage, speak their piece, shout, rant, and die rather bloodily in front of sets of their own design. There are more shadows

(Continued on page 54)

The illustrations reproduced here from ARCHITECTURE THROUGH THE AGES *by Talbot F. Hamlin show the Indian Temple at Khajuraho (top) and Frank Lloyd Wright's "Falling Water" a week-end house in Pennsylavnia. In appraisal of the latter, the author and reviewer disagree sharply*

(Continued from page 53)

and suspense in this German conception of history than in an Alfred Hitchcock movie. Material appearances of this chair, that desk, these books, those buildings are not important to it. What *does* matter is the Idealism underlying all the furniture of the world. Let me quote from Friedell: "History writing is the philosophy of what has happened. All things have their own philosophy—indeed, all things are philosophy. Men and objects and events are embodiments of a definite nature-idea, a peculiar world purpose. Human intellect has to grope for the idea that lies hidden in every fact, the thought of which is the mere form. It often happens that things reveal their true meaning at a late stage only."

The justified complaint of this German scholarship against that of the English is that the latter does not explain the non-material elements of human consciousness. In the field of architectural history this means that while Bannister Fletcher might give all the dimensions of the temple at Khajuraho, report the date of its construction, the geology, economics, and past history of the British India in which it was to be allowed to remain standing, and still not tell what everybody can see—"There's psychology in them thar hills of stone." The question arises, what kind of psychology is it? How can it be so crazy and yet so successfully, architecture?

Now the characteristic which distinguishes Hamlin as a man from the many dead souls who push the perambulator labeled "Professor" in front of their names, across the campus at Columbia University, is that he is open to such new ideas as this. Sometimes, like a bachelor who discovers a baby in a basket at his doorstep, he doesn't know just what to do with the damned thing. But this German Idealism with its emphasis on drama and sensuousness is welcomed to his home, and its diapers washed so that it becomes fairly presentable. Under his care it issues fewer Wagnerian or Hitlerish yells than it did under its original German parentage.

To be specific for a moment, I mean that he revels in writing: "To read aright the mental state of the Romanesque centuries, we must study its buildings as well as its literature. In them both we can read a story of idealism, of frustration, of naïveté, of ignorance, and of vision which together produced the extraordinary vitality of the time. They are evidences of some kind of mass neurosis, raised almost into frenzy. The conflict between luxury and asceticism, between bestiality and idealism, between unbridled imagination and disciplined thought, was far from solved. Indeed in the cloister it was perhaps raised to a higher pitch. For the monk, the world of magic was never far away. The ancient gods persisted as living devils, and the legends show that Satan himself was conceived of as a very real, present entity. Fear and hope fight in these sometimes tortured sculptures, as they fought in the minds of their makers; cruelty and sadism show in the terrible beasts devouring men or other animals, just as mercy is shown in the lovely carvings of many of the Biblical stories. And the fear of the end of the world and of an eternal Hell, pictured in very physical terms, is always hauntingly in the background to produce such terrible things as the figure of Vice devoured by serpents in the porch of Moissac."

There, obviously, is the German influence. But for all that, the book is started in the best English tradition with the suggestion that Man, being God's favorite ape, is divided into two instincts—one making for solid construction and the other for decoration and beauty. In the same tradition, the architectural epochs, once the "styles," are carefully mustered. The facts are all there.

I can just hear some frenzied patriot asking "And just where does the book start to be *American?*" The answer is that the power to take European ideas which in Europe are never allowed to mix, to combine them without danger of explosion on these shores is in itself an exclusively American feat. By utilizing the dramatic German conception of history, Hamlin has given life to all the facts which in Fletcher tend to be merely catalogued. It will be extremely difficult to convince students, draftsmen and architects that any book of architectural history which reads with some of the suspense of a good novel can possibly be useful.

To those for whom this book in either its strength or weaknesses may contain a suggestion of how *they* might write history—particularly that as yet unwritten history of American architecture, I say this: beware an *excessive* emphasis on the sensuous elements of architecture which pervades some of the chapters of this book. We are in a thoroughly Rococo epoch and æsthetic judgment tends to drop to a merely Rococo plane. I can best illustrate what I mean by referring to the remark of Walter Pater who taught at Oxford University in the Nineteenth Century. Complaints had been raised when the unruly students lit bonfires in the quadrangle of Brasenose College. Pater, among others had been expected to suppress such antics. But he said that he did not object to the bonfires "because they lighted up the spire of St. Mary's so beautifully."

There is not the space here to trace the steps by which such exclusive concentration on sensuous elements can lead to a weakening of the critical faculty. I do say however that it has prevented Hamlin in this book from discerning that Frank Lloyd Wright's house "Falling Water" is the grossest piece of sentimentality.

The failure to observe from analogy with other eras that ours is a Rococo epoch—to observe profound psychological strain beneath the sensuousness, the virtuosity of such a work as this "Falling Water"—has misled Hamlin to saying in his last chapter that "the days of controversial propaganda for the 'modern' in architecture are over, among the most discriminating. Now again, undisturbed by contention, the architect is free to go ahead with his creative task of making a gracious, a beautiful, and an efficient framework for living." Looking away from the rosy light reflected from the church spires I think it may be said that the architects are not free. They have yet to weed out acres of crass materialism and stuffy notions of gracious and glamorous living before planting a crop of new architecture. There isn't a single Brunelleschi in sight.

But I must admit that the standards and values set up in the forepart of the book—the perceptions of the part which architecture has played in the drama of past epochs — are so good that they finally bear down heavily on Hamlin's too-sensuous judgment of the present. And when a historian is so humble before the facts and relationships as to provide a basis for a judgment of the present—a judgment having greater firmness than his own, he may be said to have arrived—definitely. ALAN MATHER

LOW-COST HOUSES FOR FACTORY EMPLOYES, AT JARRATT, VIRGINIA

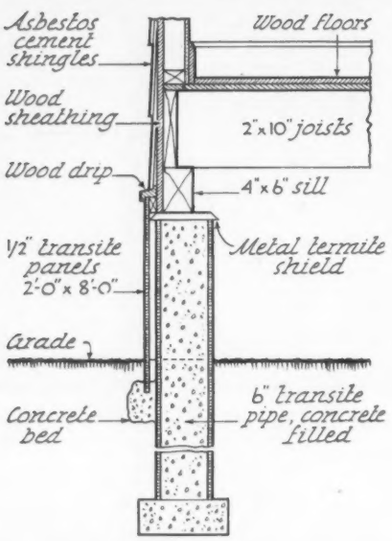
EDITOR'S NOTE—*The following account by* E. M. JENKINS, *Johns-Manville engineer, describes the construction of a group of low-cost houses for staff employes of the Insulating Board Plant established about a year ago at Jarratt, Va. They were designed by* A. C. REID, *Architect, and* LAWRENCE W. KANE *superintended construction. The "performance record" of the houses has been excellent for the first year—maintenance cost has been low and they have been more comfortable during all seasons than other houses in the neighborhood. The photographs were made by* CHARLES P. CUSHING, *New York*

The establishment of a new Insulating Board Plant about sixty miles south of Richmond, Virginia, in the pine woods near the town of Jarratt, required the construction of a new residential district in the town for employees. Jarratt had no services except electricity, but the families of staff employees were accustomed to the suburbs of larger northern towns with water, sewers, and gas.

Accordingly, a fifteen-acre tract of land heavily wooded with pine was purchased. This area was sub-divided in a park type plan providing a house density of 2.2 per acre and a centrally-located one-acre recreational area. The low density was determined from the low land values of the area and because it was considered desirable to supply each house with a large area for a vegetable or flower garden. With a view to increasing the likelihood of front lawn maintenance by the tenant, lots were made approximately seventy-five feet wide. Depths were about two hundred feet. Thus each house occupies about fifteen thousand square feet. The curved streets of the park plan improved the possibility of a pleasing residential district avoiding row appearance of the houses which were all devised from one basic plan.

All houses were finished in white shingles but colored trim and roofs give variation. Orientation of houses was also studied to obtain variety in appearance. Hard-surfaced roads were built and extensive surface water drainage lines installed. Electricity was run about the area and a water line over one mile in length was constructed from the filtration plant of the factory, to and about the site. Sewage disposal was by individual septic tanks and bottled gas was provided for each home. The dense growth of pine was thinned and cleared sparingly as the summer heat of the latitude makes the shade of trees welcome.

Fourteen houses in all were constructed in a ten-week period by the contracting firm of C. L. Lewis, of Lynchburg. These houses were one-story with no basement and were made up of three four-room, nine five-room, and two six-room houses. The number of rooms in each house was determined by a committee of the plant employees. The five-room house was developed from the basic four-room by lengthening the house to give a larger living room with an additional room for dining. The six-room plan was developed from the five-room house by the addition of a room at the bedroom end of the



Asbestos-cement pipe piles were used for support of the Jarratt Park low-cost houses, as detailed above. In the accompanying account, Engineer Jenkins also describes pre-cutting of the framing of the houses, illustrated below. Views of the project and detail photos by Charles Phelps Cushing

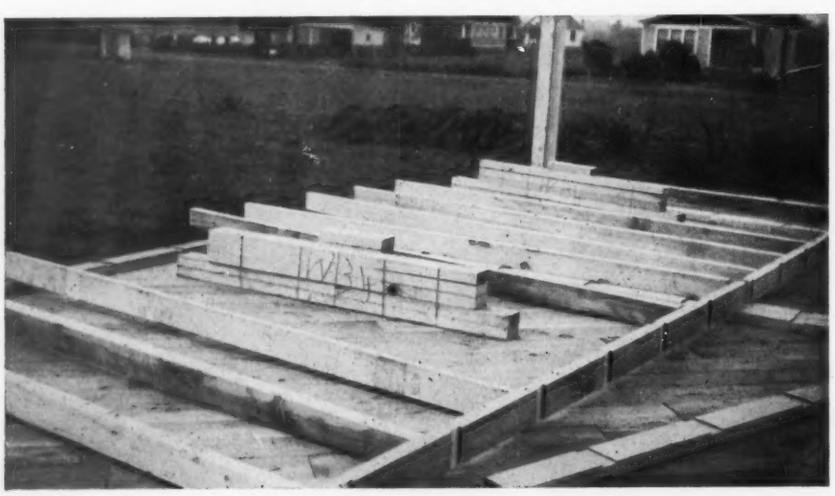
house. Closets between the two end bedrooms were deeper than usual to provide a future hallway or six-room house hallway to the third bedroom. When the hallway was used, the closets displaced were provided in part of the additional room.

The construction of the Jarratt houses was platform type frame. Much of the lumber used for sheathing and framing was cut from the site of the houses in clearing the year before. Good features of construction were asbestos-cement side wall and roofing shingles, diagonal sub-floor and side-wall sheathing, hardwood floors with asphalt-saturated asbestos felt between sub and finished floors, good quality bathroom fixtures with copper tubing supply lines, asbestos-cement wainscoting brought to ceiling height around the built-in tubs, insulating board linings throughout walls and ceilings except heater cabinets where 3/16″ asbestos-cement sheets were used, and a hard-pressed insulating board as the linoleum base in kitchen and bathrooms.

As the Jarratt houses were sponsored and financed by the Johns-Manville Corporation, opportunity was afforded to test a number of experimental methods and materials. Many of these are a part of an extensive experimental program at present under way.

One of the experimental constructions closely checked for cost was asbestos-cement pipe piles and ½″ asbestos-cement sheet curtain walls for foundation construction. Indications were that this construction would save upward of $50 on a small basementless house, as compared to one using concrete block footing walls. Asbestos-cement pipe was precast to footings and concrete-filled. After excavation, pile and footing were set in place on a thin bed of unset concrete which served to obtain levels and take up inequalities in the ground surface. When all piles were set, floor framing was begun after circular termite shields had been placed on top of each post. The space between the water table and the ground was closed with a ½″ asbestos cement sheet 24″ wide and 8′-0″ long. These sheets were fastened with screws on 12″ centers just under the water table. At the bottom, 15″ below outside grade, the curtain sheet was set in a concrete footing 6″ square in cross-section. Vertical sheet joints were closed tightly with battens of the same material bolted to the back. The curtain sheets were called upon to withstand approximately a 15″ earth pressure as the under-floor area was excavated to remove organic surface material and to provide crawlway space and termite protection. The curtain sheets give a neat appearance and the tight closure necessary with the type of heating installed. The asbestos-cement piles as embedded in the footings supply lateral bending strength without reinforcement through the tensile strength of the asbestos-cement shell.

Another experimental feature was in the framing of the houses. A special pre-cutting method was used, in that the houses were planned to provide a maximum of repeating numbers—and pre-cutting only these. With a few sizes and lengths and standardized window and door openings it is possible to pre-cut close to 75 per cent of the frame pieces needed, representing 84 per cent of the cross-sectional square inches of cutting involved. A three h.p. DeWalt saw was used for pre-cutting.

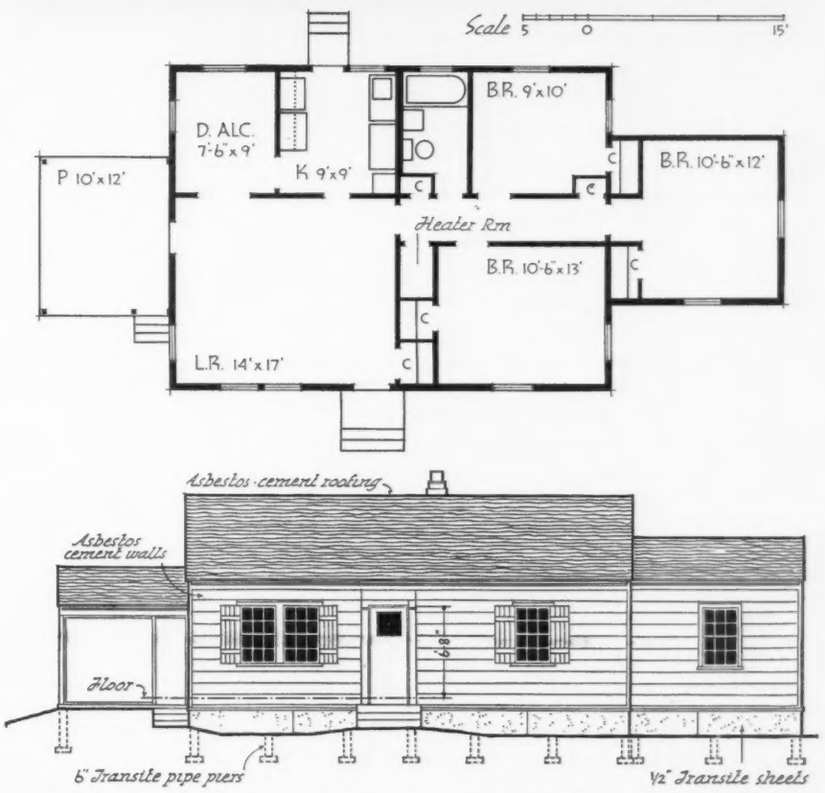


Time studies indicate a net saving of about seven dollars per thousand board feet by this pre-cutting.

In addition to pre-cutting of the frames, a Spacer-strip method was used. In this method a 2″ x 4″ is notched both sides on 16″ centers with a ¼″ x 1¾″ notch. These members are used for joist headers, plates, soles, rafter thrust member and ridge including partition plates and soles. The Spacer-strip is simply a processed member and adds nothing to lumber cost. Time studies indicated the cost for preparation of the Spacer-strips was less than three dollars per house. The single plate possible with Spacer-strip construction, because of direct vertical transfer of loads, saves about three times this amount in material and labor. Also the permanent template, which the Spacer-strip is, will save time in frame erection and furnish precise stud spacing for the application of interior wall surfaces, whether dry-wall or plaster base. Spacer-strips were cut with a three H.P. DeWalt power saw on the site using a 1¾″ dado head.

To reduce waste in material and labor to a minimum in application of diagonal sheathing and sub-flooring a method was tested which proved to be effective. Cutting waste was reduced to less than 1½ per cent and the linear inches of cutting reduced up to 60%. In this method large overhangs are allowed at edges and openings so that the drop-offs can be used with the diagonal cut already made at the reverse end of the work. This required a dressed and matched 1″ x 6″ board with square or matched ends. At Jarratt, square ends were utilized on the boards and ends butted, the tongue and groove holding the ends rigid. A diagonal ladder free-standing on its own legs with the same slope as the sheathing was conveniently used for side wall sheathing application.

Heating was by individual forced warm air. Heating equipment was oil burning and fully automatic, of the pot three-stage burner type with variable forced draft. A small amount of duct work was necessary as the central hallway ceiling furred down six inches was adjacent to the heater and served to distribute warm air in the six-room as well as the four- and five-room house. Return air was taken through grills or registers under windows to avoid cold floor drafts and return to the furnace through the under-floor area without ducts. Each



return air outlet had a metal lining, valve and elbow. Return air reaches the main blower through the concrete floor directly under the heating unit. The heating unit occupies part of a space 32″ x 48″ area provided for heating equipment. The separate hot water heating unit, also automatic and burning the same oil as the heating unit from the same tank, was placed in a separate cabinet 18″ x 18″ in area. Thus the total floor area devoted to heating was about 13 square feet.

The type of heating was selected to provide economy in automatic heating with the low heat demand to be expected. The insulating board wall linings and Rock Wool ceiling insulation, added to the low degree-day of the latitude, reduced maximum demands to as low as 36,000 btu. per hour. The air circulatory system was designed to provide warm floors and comfortable heat distribution—a thing so often lacking in basementless houses. While the circulation is not "closed" as generally required it is by far the best for heat distribution and sound from an operating point of view, when using an oil fuel automatically controlled.

The heating system was also designed to provide ejection of hot air from the house during the warm summers.

E. M. JENKINS

COMPETITION ANNOUNCEMENTS AND PRIZES

A.I.A. RESPONSE

An analysis of Regional Competitions, to date, by an interested New York architect, shows that relatively *few* members of the A.I.A. have troubled to compete in the design of Post Offices—although the success of those Institute members who *have* entered is more than encouraging. The facts are as follows:

There are 196 A.I.A. members in Region No. 8 but only 12 entered the Leavenworth Post Office Competition. There were 25 entrants in all and the First Prize and two of the four Honorable Mentions went to A.I.A. members.

There are 559 A.I.A. members in Region No. 7 but only 20 entered the Evansville Post Office Competition. There were 78 entrants in all and the First Prize and two of the four Honorable Mentions went to A.I.A. members.

There are 263 A.I.A. members in Region No. 1 but only 19 entered the Montpelier Post Office Competition. There were 74 entrants in all and the First Prize and two of the four Honorable Mentions went to A.I.A. members.

There are 233 members of the A.I.A. in Region No. 11, but only 35 of these entered the Burlingame Post Office Competition. There were 131 entrants in all and one of the five Honorable Mentions went to a A.I.A. member.

There are 109 members of the A.I.A. in Region No. 3, but only 31 entered the Jamestown Post Office Competition. There were 71 entrants in all and in this competition alone, Prizes and Honorable Mentions went to competitors who are not members of the A.I.A.

In the National Competitions, A.I.A. participation is a little more encouraging—as it well might be, judging the prize awards. For instance, 75 of the 208 entrants in the Covington Post Office and Court House Competition were A.I.A. members and the First Prize and two of the four Honorable Mentions were won by Institute members. Likewise, in the Smithsonian Gallery of Art Competition, 146 of the 402 entrants were A.I.A. members and four of these won the First Prize and three of the ten Honorable Mentions.

KINLEY MEMORIAL

The award of the Ninth Kate Neal Kinley Fellowship to *Ruth Helen Rink*, of Edinburg, Illinois, and to *George N. Foster*, of Ridgway, Illinois, as alternate, has been announced by the Board of Trustees of the University of Illinois.

Miss Rink, a music student, was graduated in June, 1939, from James Millikin University and has studied for the past year at the Juilliard Graduate School. Foster is a student in painting and received his degree of Bachelor of Fine Arts in Painting in June, 1940, from the University of Illinois.

The Fellowship provides for a stipend of one thousand dollars for advanced study either in America or abroad, and is awarded annually.

LANDSCAPE FELLOWSHIP

The American Academy in Rome has announced awarding its 1940 Fellowship in Landscape Architecture to *John Robinson Tregenza*, of New York City.

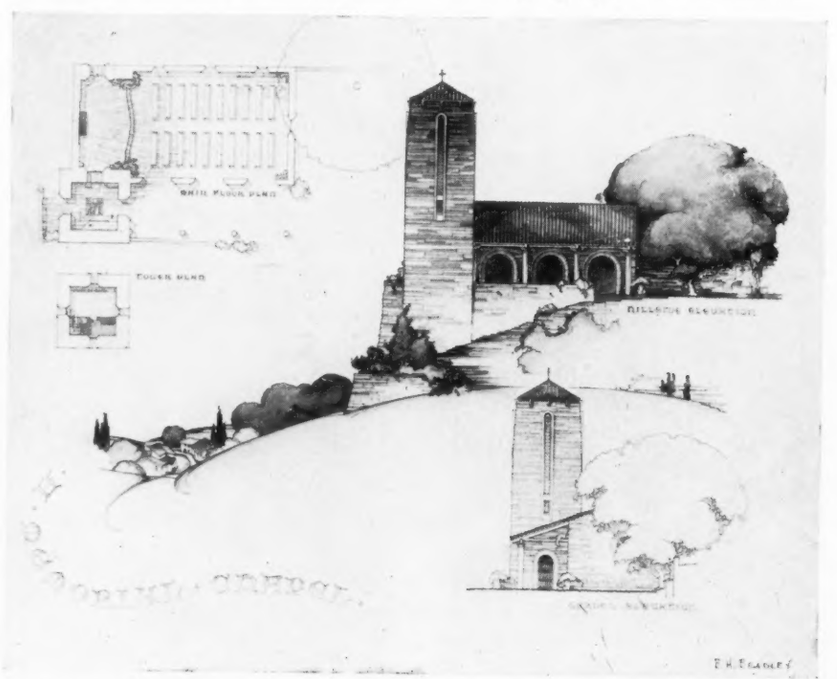
Tregenza studied at the University of Virginia, Columbia University, and Harvard University, and has been employed by Alfred Geiffert, Jr., Landscape Architect, of New York, for the past year. The Fellowship, which is for one year, is valued at $2,000 and may be renewed for a second year.

There were five finalists this year, chosen from among nineteen entrants in a 24-hour preliminary competition. The problem called for the design of a Shopping Center and Community Green for a residential town. Honorable mention went to *Milton M. Palmer*, of Arlington, Va., a graduate of Cornell University.

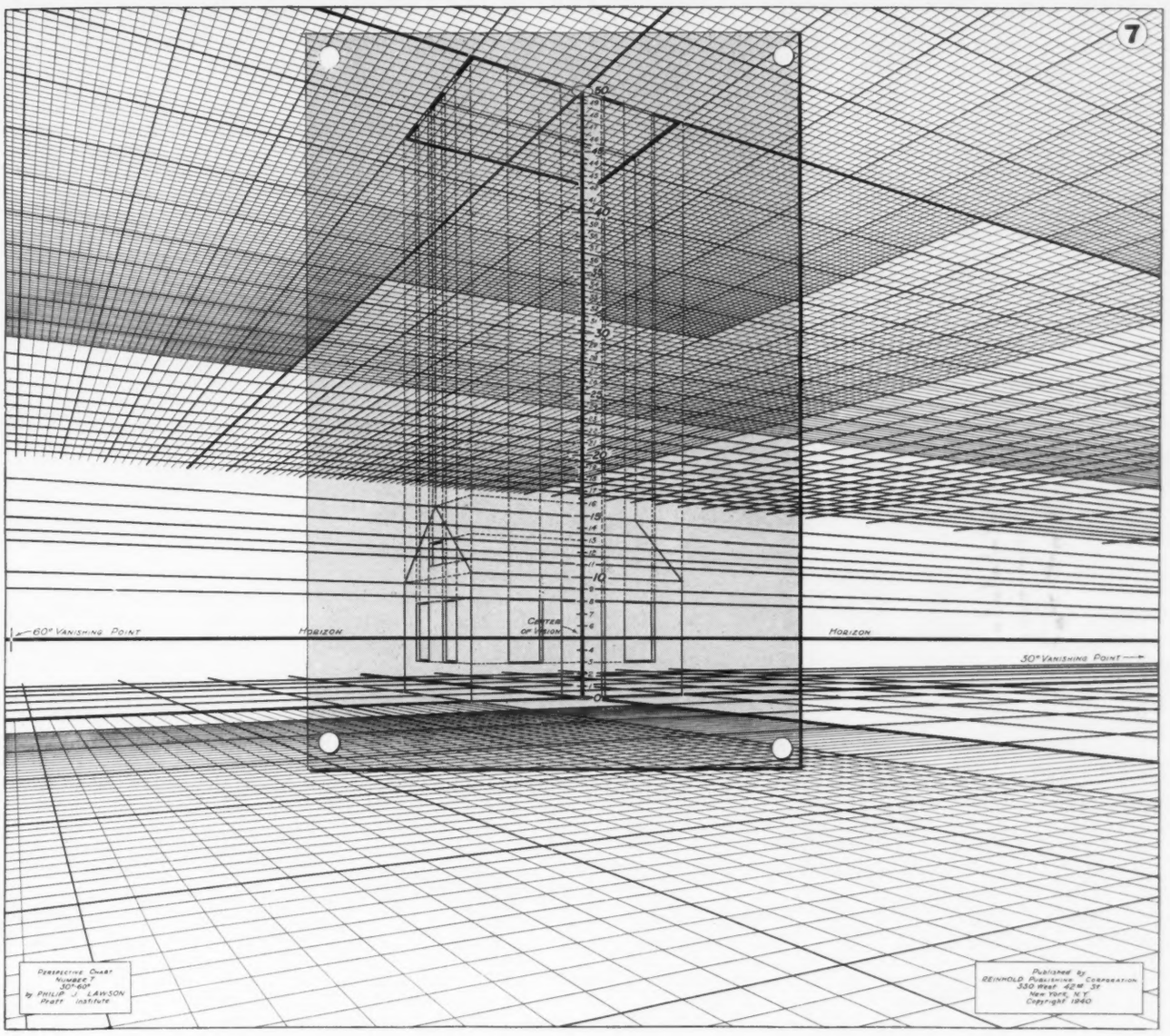
COVER DESIGN

Prizes in a competition for a cover design of a new stationery trade catalog, sponsored by the Weldon Roberts Rubber Company and open to art and architectural students throughout the country, have been announced as follows: First Prize, *Ernest Di Bartolo*, Buffalo, N. Y.; Second Prize, *Clarence L. Price*, Indianapolis, Ind.; Third Prize, *John B. W. King*, Buffalo, N. Y.

The winning designs were selected by a Jury composed of William Whelan, Art Editor of "Scholastic," Kenneth Reid, Editor of PENCIL POINTS, and William Longyear, Supervisor of the Department of Advertising Design, Pratt Institute.



This drawing of "A Memorial Chapel" won for Bernard H. Bradley, of Texas and Chicago, the Francis J. Plym Fellowship in Architecture for 1940 open to graduates of the University of Illinois, Architectural Department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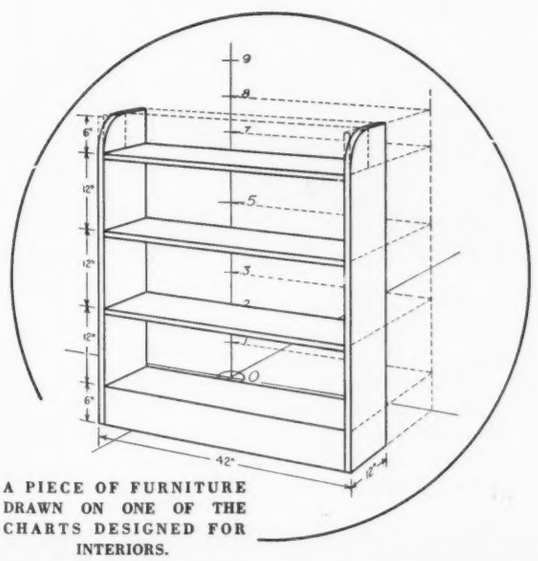

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Supplemental Illustrations

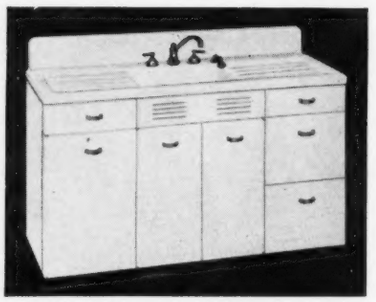
PENCIL POINTS

330 West 42nd St., New York, N. Y.

NEW PRODUCTS

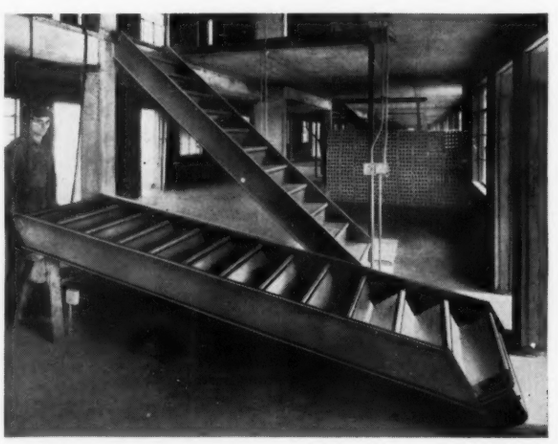
NEW STANDARD UTILITY CABINET SINK

The American Radiator & Standard Sanitary Corp., Pittsburgh, Pa., announces the introduction of a new 4½ ft. kitchen sink, which has features similar to the well-known Hostess 25-in. wide sinks, except that the Utility is 22 in. wide. A new feature however is the 6-in. back which permits the Utility to be hung from the wall when a cabinet underneath is not desired. A lowered radius where back meets the side rim provides for neat workmanlike joining of linoleum or other cabinet counter-top covering with sink. Customary union strip for joining with horizontal counter-top or metal moulding for right angle connections to counter-top and back are readily made in a practical manner. With the use of 1½ in. radius wood cove moulding to support linoleum at juncture of counter-top with back wall a one-piece linoleum covering of counter-top and up the back wall can be obtained. The Utility Hostess is especially designed for various types of modern cabinet top construction.



NEW J. & L. LIGHTWEIGHT CHANNELS

The lightest 10-inch hot rolled steel channel section ever produced, weighing only 6½ pounds to the foot, is now being manufactured exclusively by Jones & Laughlin Steel Corp., Pittsburgh, Pa. Designed to meet the increasing demand for rigid steel stairs in residences, apartments, housing projects, and other light occupancy buildings, this new lightweight channel supplies ornamental metal manufacturers with a product of true shape and accurate dimension of known structural quality steel, and is said to be stronger than cold formed steel channels of equal weight.



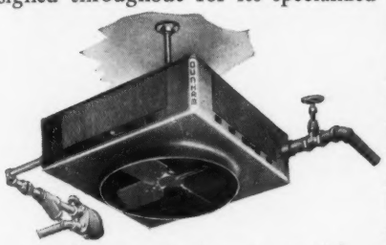
The new channel meets the requirements of the American Institute of Architects, American Institute of Steel Construction, the American Society of Testing Materials for structural grade steel, and similar organizations.

(Continued on page 63)

(Continued from page 62)

DUNHAM DOWNFLO UNIT HEATER

A specially designed unit heater for industrial and commercial applications is announced by the C. A. Dunham Company, 450 East Ohio St., Chicago, Ill. It is designed throughout for its specialized function of driving a large volume of heated air at relatively high velocity and low temperature down to working levels, making possible a heated air stream driven more directly floor-ward than is possible with horizontal air discharge heaters.

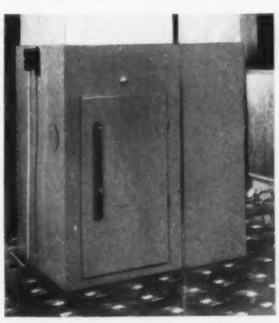


High ceilings in factories, high clearances necessary for industrial equipment such as cranes, over-doorway heat requirements of stores and office buildings, and small rooms where one unit only may be required, are typical of the conditions which this heater is designed to meet.

IRON FIREMAN SELF-FIRING WINTER AIR CONDITIONER

The Iron Fireman Mfg. Co., Portland, Ore., announces the introduction of a new winter air conditioner of the bin-fed type. The new unit is a self-contained warm air conditioner complete with furnace, stoker, humidifier, circulator and air filters. By means of a screw conveyor which fits into a nearby fuel bin, the new unit feeds itself with coal. The unit can be used as a central warm air conditioning system for homes, for commercial establishments, and for industrial applications.

The heater is made of heavy, die-formed, steel plates electrically welded to form a gas-tight, one-piece unit. The combustion chamber is sized and proportioned to the fuel burning rate. A liberal amount of heating surface and three flue-gas passes permits a maximum transfer of heat to the circulating air. The heater sections are tapered toward the top to allow a free flow of the expanding warm air as it is circulated upward through the unit. The stoker is an Iron Fireman automatic underfeed stoker, designed for the particular requirements of this unit.



On bituminous models, the cinders and ashes are removed from the hearth and placed in a covered container located within the unit. After they have cooled, the container can be removed and emptied.

Anthracite models are arranged so that the ash drops from the retort to a pit under the furnace. This pit may be just large enough to accommodate a suitable ash container, or it may be large enough to allow the ash to accumulate for an entire heating season.

The circulating air fan is driven by a separate motor, independent of the stoker unit. Controls are provided to operate the fan in accordance with the bonnet temperature and heat demand of the building.

Each unit is equipped with two 25″ x 16″ spun glass filters impregnated with oil. They are located in the cold air return chamber so that only clean air will pass through the unit. Maximum output at bonnet is 100,000 B.T.U. per hour.

(Continued on page 64)

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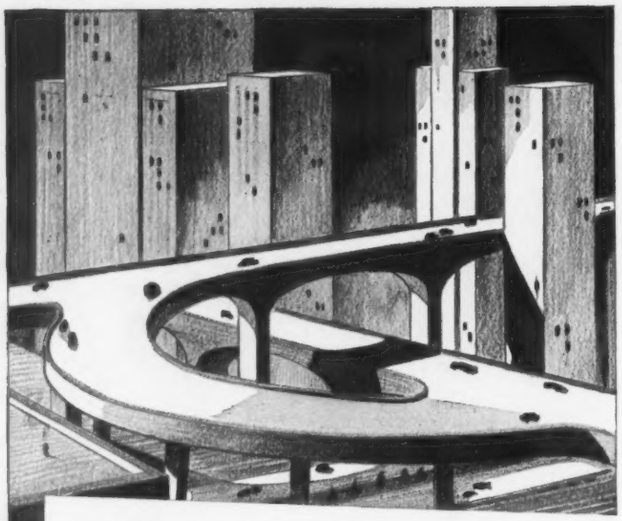

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(Continued from page 63)

NEW KITCHEN MAID CABINETRY FEATURE

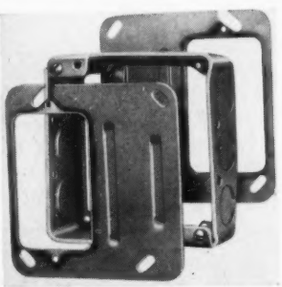
The Kitchen Maid Corp., Andrews, Ind., announces the introduction of the Tabelette, a new kitchen feature that is available only with Kitchen Maid standard unit cabinetry.

The Tabelette is a convenient utility table that may be set up on a moment's notice, and just as quickly folded out of the way and out of sight within the cabinet base. When erected for use the working surface of the Tabelette is 27 3/16 in. from the floor. Its design allows feet and legs to extend beneath it.

It is constructed of wood, metal and newest compositions. The table itself is five-ply wood, surfaced with Temperprest.

DOUBLE-END OUTLET BOXES FOR THIN WALLS

To simplify the installation of switches and outlets in the thin wall partitions found in modern hotels and apartment houses, a new double-end outlet box has been announced by the construction materials division of the General Electric Appliance and Merchandise Department, Bridgeport, Conn. The new box is made up of new shallow covers (SP52C10) and a re-designed extension ring (SP53151). The combination of two of the covers with the ring permits the installation of two switches or outlets beside each other in the same box, but facing in opposite directions. Two rooms can be supplied in this way from a single run of conduit or cable. Many modern multiple-dwelling walls or partitions are but two inches in thickness.



The extension ring for this assembly is four inches square and one and one-half inches deep. The ears on each end are drilled and tapped so that the covers can be mounted in any position. This makes fixing the position of the box unnecessary before actual installation.

The new shallow covers have depressed ribs to prevent the cracking of plaster. The opening for a single flush device is off center. Switches or outlets, when installed on both sides of a partition, will not interfere with each other.

NEW INTERIOR INSULATING BOARD

The Insulite Co., Minneapolis, Minn., has recently added to its line of insulating products, Satincote, a new insulating board, adaptable for resurfacing the interiors of stores, homes and offices.

Satincote is available in four harmonizing pastel shades of buff, grey, green and coral. Its surface is so made that decorative paint finishes of any kind can be applied to it later, whenever a different color treatment is desired.

The selected wood fibers used in Satincote are so interlaced that millions of tiny air cells entrapped within it resist the passage of heat from inside to outside in winter, and from outside to inside in summer. It is also said to have exceptional sound-deadening and light-reflection qualities.

(Continued on page 65)

(Continued from page 64)

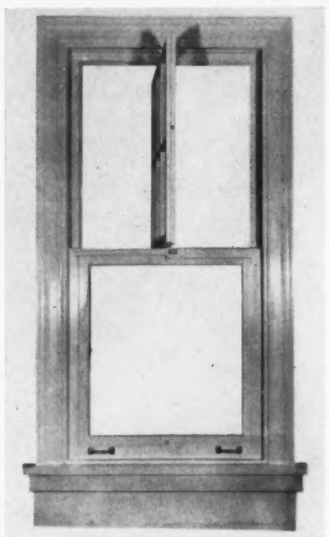
The new Satincote interior board is very easily washed. This makes it particularly valuable for use in school rooms, dance halls, restaurants, hotels, etc.

Satincote often is applied to existing walls as well as to studs and rafters. It may be secured in the form of panel board, plank, or tile-board.

NEW REVERSIBLE DOUBLE-HUNG WINDOW

The Reversible Double-Hung Window Corp., 103 Park Ave., New York, is offering a new type of double-hung window which does not differ in any respect from the conventional type of window except that it is a sash within a sash.

The lights are mounted in a separate frame of their own within the frame of both upper and lower sash. The inset frame is pivoted at the center, top and bottom. Joints are so shaped that the interior frame can turn vertically on the central pivot. Therefore by turning both upper and lower sash 90 deg. there is virtually 100% ventilation. The pivoted joints may, however, be turned the complete 180 deg. thus bringing the outside face to the inside, so that both sides of the glass may be washed from the room side.



Concealed behind the trim at both top and bottom are roller screens which are attached — but detachable — to the top rail of the upper sash and the bottom rail of the lower sash. When the sash is raised or lowered the open area is automatically screened.

According to the manufacturers it is planned to produce the reversible double-hung window in materials and sizes for every need.

An important advantage claimed for the new unit is that safety belts and hooks and costly risk insurance are eliminated because the windows can be cleaned from the inside of the building.

NEW ABSORPTIVE FORM LINER BOARD

To make concrete surfaces harder, denser, smoother and more resistant to abrasion, a new absorptive form liner board has just been put on the market by The Celotex Corporation, Chicago, Ill. The product is currently being used by TVA on its Watts Bar Dam and by the Reclamation Bureau on its Friant California Dam.

Celotex absorptive form liner is used on the inner surfaces of concrete forms. According to engineers, it improves the surface of the concrete by several means. It absorbs air bubbles from the surface, preventing them from causing pitting and sand streaks. It removes excess water from the concrete directly in contact with the form. This reduces the water-cement ratio and any excess of fines, producing a surface of superior smoothness, hardness and durability.

Celotex absorptive form liner is being offered in two types. The standard product is ironed on one surface to provide a smooth concrete. A special textured liner provides a textured concrete.

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